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A CATALOGUE OF
NORTH AMERICAN DIPTERA

(OR TWO-WINGED FLIES)

BY

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A CATALOGUE OF NORTH AMERICAN DIPTERA

BY J. M. ALDRICH.

INTRODUCTION.

The present work is based upon Osten Sacken's Catalogue of North America Diptera, second edition, published in 1878.* All the references of that work are embodied in this, with only such changes as later studies seem to require.

Still, the great amount of work which has been done on North American Diptera within the quarter of a century has largely changed the face of the subject. Hence the reader will probably observe, especially at first, more of contrast than resemblance. The number of species has doubled; the number of references to previously known species has almost doubled; several families have been monographed or revised, with more or less change of nomenclature; along with this has gone the publication of a multitude of smaller papers, touching every family but one, and the larger part of the genera. Under these conditions it is inevitable that great changes should appear in the new catalogue. It is the more necessary that I should acknowledge my obligation, which is far greater than appears on the surface.

Faunal limits.—These, as in the former catalogue, include all of North America, in the widest sense, taking in Panama on the South and Greenland and the Aleutian Islands on the North. The West Indies are included, even down to Trinidad, adjoining Venezuela. There is no place to draw a line between the islands. The Bermudas and the Hawaiian Islands are not included.

Scope.—To give the most information consistent with the limits of space has been the object. All references to a species, if in any way descriptive or useful, have been inserted if found. The only known exceptions are in those species like the Hessian fly and house-fly, where the references are so numerous that a selection of the more important articles is necessary. Another exception is uniformly made of articles in non-scientific journals; these are only mentioned when of importance in tracing the history of a species.

* Smithsonian Miscellaneous Collections, Vol. xvi.

Articles on biology and anatomy have been especially sought for. However it may be in other orders, the vast economic importance of the Diptera will not allow us to study the cabinet specimen only.

In economic literature some of the minor references have been omitted, where no new facts appeared to be brought out. Every one knows that a considerable part of economic literature is of this class,—and it is properly so, being prepared for a public who do not read entomological journals. The omitted articles are generally very brief ones, and strictly “popular” in form.

There are some European writings on the biology of species occurring both in Europe and North America, which are not included. It was not deemed feasible to enter in detail into the European literature.

Method.—In form I have followed Osten Sacken quite closely. Few explanations will be needed. It is to be understood that the species is described with more or less fullness under each reference, unless an explanation is given indicating something else (as “oc.” for occurrence; “syn.” for synonymy; “notes,” etc.). Still, I am aware that there are some cases where I failed to note the limitation.

The locality is given with each reference. This is of importance in two ways. First, in furnishing the type locality, as closely as given by the describer; second, in case a certain reference proves to have been due to an erroneous identification, it enables the reader to deduct that one and leave the rest unaffected. Every entomologist who acquires any familiarity with the literature of a group comes to trust some writers much more fully than others. It is only by separating the localities in the bibliography that these allowances can be made, without looking up all the literature.

Synonymy and nomenclature.—Those synonyms which had been made out by Osten Sacken I have accepted *in toto*. More recently, a considerable number have been made out by the examination of types of Walker, Bigot, and others. These appear to be well-founded. In addition to these, a large number have been made out from descriptions, nearly every dipterist of the country having contributed something in this direction. I have generally quoted these, although we may expect that some will ultimately prove erroneous. In a few cases I have expressed doubt, or an adverse opinion. The authority for synonymy is generally given in brackets, unless expressed in the context.

In the selection of names, priority is accepted as the first test; it may, however, be overshadowed by uncertainty as to the application of the older name. I have found comparatively few cases of specific names that were hard to decide, but among genera there are many which may be argued about as well one way as the other. I began with the intention of being very conservative; but I have been drawn

along, inch by inch, until I am aware of having adopted most of the changes which I at first opposed. In this I have been influenced by the feeling that my catalogue must represent the actual condition of the classification, not merely my own views. Within a family or two, I would insist on the latter; otherwise it has seemed best to concede something to the opinions of others, only interposing a check when some too revolutionary change is attempted (as in altering the name of *Rhamphomyia*). I am far from believing that the changes of generic names now becoming common are in the interest of, or will attain, subsequent permanence. Such a hope is illusive. There will always be loop-holes which will allow further change. We are as near to permanence now as we ever shall be.

System.—The sequence of families is substantially that of Osten Sacken's later papers, influenced in minor points by Coquillett. Brauer's system, although finding some favor in Europe at present, appears less expressive of the relations. An abstract of the classification will be found at the end of the introduction.

Acknowledgments.—First of all, I am indebted to Baron Osten Sacken for his catalogue, the basis of my work. It is the best designed, most accurate, most informing work of the kind that I have ever seen, on any large order or group of animals. Hence it has been a great advantage to me to have such a guide to follow. While I do not claim any such command of the subject as was possessed by Osten Sacken, I am sure that my work has been benefited by the influence of his. I also acknowledge the receipt of frequent encouraging and inspiring letters from him during the progress of my work. He is not, however, responsible for any of the details of my classification.

To Professor S. W. Williston I am deeply indebted. His encouragement first induced me to undertake the preparation of this Catalogue. He gave me many unpublished notes, and looked over the manuscript of the *Asilidæ*. His published bibliographies I found indispensable. In this connection I will add that his disinterested labors in the cause during a long series of years, amid the arduous and exacting duties of his more immediate specialties, call for our admiration and our gratitude. These labors, considering also his success in adapting his writings to the needs of beginners in the science, entitle him to rank with Osten Sacken as one of the founders of North American dipterology.

Mr. D. W. Coquillett several times furnished me with information on obscure references, always responding promptly and courteously with just what I wanted.

Dr. L. O. Howard gave me a number of practical suggestions which influenced the form of my work somewhat; he also assisted me very materially in getting it printed, and was, as usual, continually giving me unexpected but gratefully appreciated lifts.

Professor J. H. Comstock extended courtesies when I was visiting Cornell. In his department I examined a considerable collection of Diptera determined by Osten Sacken and Williston, also some interesting literature. In the Cornell University library I found "Silliman's Journal."

Mr. Samuel Henshaw assisted me very kindly when I examined some families in the Loew-Osten Sacken collection at Harvard University.

Dr. Garry de N. Hough gave me some unpublished notes, and a large number of Diptera.

Mr. O. A. Johannsen, of Cornell University, revised the classification of the Chironomidae for me, greatly improving my work on that family.

Mr. Hugo Kahl gave me unpublished notes of his own; he also gave me minute directions about some points to look up in the Loew-Osten Sacken collection, the outcome of which gave me a very high opinion of Mr. Kahl's acuteness in systematic work, and revealed some peculiar errors of Loew in describing two or three species.

To W. D. Hunter, C. W. Johnson, C. T. Brues, and Professors V. L. Kellogg and C. V. Piper, I am indebted for references to literature.

Mr. A. L. Melander gave me great assistance in the Empididae. I have followed his advice quite uniformly in regard to nomenclature and synonymy in that family.

I have availed myself of Dr. Coloman Kertész's great work, "Catalogus Dipteriorum," of which two volumes have reached me, only to the extent of adopting the generic distribution of the Cecidomyidae, and of picking up one species—*Culex penafielii* Will.—which I had not found before. My work was almost completed when the first volume of Kertész came out.

To all the gentlemen named, I extend my sincere thanks.

The catalogue closes January 1, 1904.

J. M. ALDRICH.

UNIVERSITY OF IDAHO,
January 27, 1904.

SYSTEM OF CLASSIFICATION ADOPTED.

Suborder PROBOSCEA.

Section ORTHORHAPHA.

Division *Nemocera*.

Superfamily 1.—*Nemocera Vera* :—Tipulidæ, Dixidæ, Psychodidæ, Chironomidæ, Culicidæ, Mycetophilidæ, Cecidomyidæ.

Superfamily 2.—*Nemocera Anomala* :—Bibionidæ, Simuliidæ, Blepharoceridæ, Rhyphidæ, Orphnephilidæ.

Division *Brachycera*.

Superfamily 3.—*Eremochæta* :—Stratiomyidæ, Tabanidæ, Acanthomeridæ, Leptidæ (inclusive of Xylophagidæ and Coenomyidæ).

Superfamily 4.—*Tromoptera* :—Nemestrinidæ, Cyrtidæ, Bombyliidæ, Therevidæ, Scenopinidæ.

Superfamily 5.—*Mydaidæ* :—Mydaidæ.

Superfamily 6.—*Energopoda* :—Apioceridæ, Asilidæ, Dolichopodidæ, Empididæ, Lonchopteridæ, Phoridæ.

Section CYCLORHAPHA.

Division *Athericera*.—Platypezidæ, Pipunculidæ, Syrphidæ, Conopidæ.

Division *Calyptrata*.—Æstridæ, Tachinidæ, Dexiidæ, Sarcophagidæ, Muscidæ, Anthomyidæ.

Division *Acalyptrata*.—Scatophagidæ, Heteroneuridæ, Helomyzidæ, Borboridæ, Phycodromidæ, Sciomyzidæ, Sapromyzidæ, Lonchæidæ, Ortalidæ, Rhopalomeridæ, Trypetidæ, Micropezidæ, Sepsidæ, Psilidæ, Diopsidæ, Ephydridæ, Oscinidæ, Drosophilidæ, Geomyzidæ, Agromyzidæ.

Suborder EPROBOSCEA.

Hippoboscidæ, Nycteribiidæ.





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Adams, C. F.

Dipterological Contributions. Kans. Univ. Sci. Bull., II, 21-47; June, 1903.
Contains 37 new species from North America, and 7 from S. Africa; also some tables of genera.

Six new species of Diptera from Kansas, appended to Snow's List. Kans. Univ. Sci. Bull., II, 221-223; Nov., 1903.

Aldrich, J. M.

A New Genus and Species of Tabanidæ. Psyche, VI, 236, figs.; March, 1892.
Goniops hippoboscoides, n. gen. and sp. (syn. of *chrysocoma* O. S.).

New Species of Phora. Canadian Entomologist, XXIV, 142-146, figs.; June, 1892.

Phora cimbicis, *luggeri*, *minuta*, and *setacea*; table of species.

Revision of the Genera Dolichopus and Hygroceleuthus. Kansas Univ. Quart., II, 1-26, 1 pl.; July, 1893.

Twenty-two new species; table of species, etc.

New Genera and Species of Psilopinæ. Kansas Univ. Quart., II, 47-50; July, 1893.

Three genera and four species; *Leptorhethum* is the only genus of Psilopinæ which I now retain as given in this article.

The Dolichopodid Genus Liancalus Loew. Psyche, VI, 569-571; Dec., 1893.
L. hydrophilus and *similis*; table of species.

Courtship Among the Flies. American Naturalist, XXVIII, 35-37; Jan., 1894.
Habits of some species of *Dolichopus*.

New Genera and Species of Dolichopodidæ. Kansas Univ. Quart., II, 151-157; Jan., 1894.

Two new genera and five new species; notes on other described western species.

The Tipulid Genera Bittacomorpha and Pedicia. Psyche, VII, 200-202, fig.; Feb., 1895.

Bittacomorpha occidentalis, n. sp.

The Dipterous Genera Tachytrechus and Macellocerus. Trans. Amer. Ent. Soc., XXIII, 81-84; March, 1896.

Tachytrechus floridensis; *Macellocerus olympiæ* and *auratus*.

On the Diptera of St. Vincent: Dolichopodidæ and Phoridae. Trans. Ent. Soc. London, 1896, pt. 3, pp. 309-345 and 435-439.

Many new species, tables in several genera, and notes on described species.

A Collection of Diptera from Indiana Caves. 21st Annual Report of the Department of Geology and Natural Resources of Indiana, 186-190; published May 6, 1897.

Odontopoda, n. gen.; *Mycetophilus umbraticus*, *Odontopoda sayi*, *Blepharoptera latens* and *specus*, *Limosina tenebrarum*; notes on other species.

Goniops and other Synonyms. Entom. News, XI, 531; Sept., 1900.

No new species.

Biologia Centrali-Americana: Diptera, 1, Suppl., 333-366, 1 pl.; Dec., 1901.

Dolichopodidæ: 47 new species; *Sarcionus* and *Phylarchus*, n. gen.

Dolichopodidæ of Grenada, W. I. Kans. Univ. Sci. Bull., 1, 75-94, 1 pl., March, 1902.

Fourteen new species; *Xanthina*, new genus.

Aldrich, J. M., and Turley, L. A.

A Balloon-making Fly. American Naturalist, xxxiii, 809-812, figs.; 1899.

The species here discussed was afterwards described as *Empis arobaticus* by Mr. Melander.

Austen, E. E.

Descriptions of New Species of Dipterous Insects of the Family Syrphidæ in the Collection of the British Museum, with Notes on Species Described by the late Francis Walker. Part 1. Bacchini and Brachyopini. Proc. Zool. Society of London, Jan. 17, 1893, pp. 132-164, 2 col. pl.

Ocyptamus iris and *Baccha sagittifera*, from Jamaica; many important notes on Walker's types and other species.

On the Specimens of the Genus *Cutiterebra* and Its Allies in the Collection of the British Museum, with descriptions of a new Genus and Three new Species. Annals and Magazine of Natural History, Ser. 6, Vol. xv, 377-396, 1 pl.; May, 1895.

Cutiterebra funebris (Trinidad), *approximata* Walk. (Vancouver); *Bogeria princeps*, n. gen. and sp., Mexico; other important notes.

Further Notes on *Cutiterebra*: On the Identity of Certain Species Described by the late Bracy Clark. Annals and Magazine of Natural History, Ser. 6, Vol. xvi, 147-155; August, 1895.

C. atrox, *detrudator* and *fontinella* of Clark.

Notes on Hippoboscidæ in the Collection of the British Museum. Annals and Magazine of Natural History. Ser. vii, Vol. xii, 255-266; Aug., 1903.

Important notes on species of Wulp and Walker; no new species.

Babb, Geo. F.

Notes on *Rhagoletis suavis*, with desc. of larva and puparium. Ent. News, xiii, 242, 1 pl.; Oct., 1902.

Baker, C. F.

Biological Notes on some Colorado Diptera. Ent. News, vi, 173, 174; June, 1895.

Records rearing of twelve species.

Banks, Nathan.

Some Psychodidæ from Long Island. Canadian Entomologist, xxvi, 329-333; Dec., 1894.

Psychoda nigra, *minuta*, *superba*, *bicolor*; table of species.

Notes on Psychoda. Canadian Entomologist, xxvii, 324; November, 1895.

P. albitarsis, Ithaca, N. Y.

Syrphidæ of Long Island, N. Y. Journal of the N. Y. Ent. Society, v, 40, 41; 1897.

A list of species collected at Sea Cliff, L. I.

The Eastern Species of Psychoda. Canadian Entomologist, xxxiii, 273-275; Oct., 1901.

P. signata, *opposita*, *nitida*.

Concerning *Gastrophilus epilepsalis* French. Canadian Entomologist, xxxv, 333, 1903.

Becker, Theodor.

Dipterologische Studien. In Berliner Entomologische Zeitschrift.

I. Scatomyzidæ. Vol. xxxix, pp. 77-196, 1 plate; 1894.

II. Sapromyzidæ. " xl, pp. 171-264, 1 pl.; 1895.

III. Lonchæidæ. " xl, pp. 313-344; 1895.

IV. Ephydridæ. " xli, pp. 91-276, 4 plates; 1896.

V. Pipunculidæ. " xlii, pp. 23-100, 1 plate; 1897. Supplement, xlv, 215-252; 1900.

Die Leptiden Formen im Gebiete der Europäisch-Asiatischen und Mittelmeer-Fauna. Entomologische Nachrichten, xxvi, 97-112 and 113-116; 1900.

Die Phoriden. Abhandlungen der K. K. Zool.-Botan. Gesellschaft in Wien. I, Heft. 1, pp. 1-100, 5 plates; 1901.

Note.—These recent monographs of European Diptera are admirably executed, and are especially useful to the American student for genera. A considerable number of the species are common to Europe and North America.

Bellardi, Luigi.

Saggio di Ditterologia Messicana. Two parts and supplement, with five plates. Mem. della Reale Accad. delle Scienze di Torino, Ser. 2, Vol. xix, 201-277, 2 plates, 1859; xxi, 103-199, and Appendix, 200-225, with 3 plates, 1861-62. Also published separately with a different pagination.

Apelleia, n. g.; many new species. Osten Sacken gives the pages as they occur in the separate edition, which I follow.

Bergroth, Evald.

Note on some South African Tipulidæ. Entom. Tidskrift, ix, 1888.

Contains a note on *Holorusia rubiginosa*. I am indebted to Professor V. L. Kellogg for this reference.

Ueber einige Nordamerikanische Tipuliden. Wiener Entom. Zeitung, vii, 193-201; June, 1888.

Eight new species, with notes on several others.

The same, Part II. Pp. 239, 240; Sept., 1888.

Pachyrhina excelsior, n. sp., and several notes.

Zwei neue Dipteren. Wiener Entomol. Zeitung, viii, 295-298; Nov., 1889.

One is from New Zealand, the other is *Dialysis disparilis*, from British Columbia; there is an additional note on the latter, Vol. xi, 162.

Buetenmüller, Wm.

Essay on the Destruction of the Mosquito and the House-fly. 180 pp., 2 plates; 1890.

Cecidomyia clavula, n. sp. Bull. American Museum of Natural History, iv, 1892, 269, pl. xv, f. 5.

Gall only.

Bigot, Jacques.

Diptera of Cuba. In "Historia física, política y natural de la Isla de Cuba," by Ramon de la Sagra, Paris, 1857, Vol. vii, with one plate. "Published in French and in Spanish; the French edition is quoted in the catalogue, the Spanish has a different pagination"—O. S. Not seen.

Twenty-five new species.

Dipterorum aliquot nova genera. Revue et Magazin de Zoologie, 1859. 305-315, pl. xi.

Hystriisiphona nigra, *Cryptineura hieroglyphica*.

Leptidi. Bulletin de la Société Zoologique de France, XII, 1-22, 1887.

21 N. A. species.

Muscidi. Bulletin de la Société Zoologique de France, XII, 581-617, 1887.

16 N. A. species.

Tabanidi. Mémoires de la Société Zoologique de France, v, 602-690, 1892.

26 N. A. species.

Diptères nouveaux ou peu connus. Annales de la Société entomologique de France, as follows (the asterisk indicates that there are no new N. A. species):

Number.	Part.	Year.	Pages.	Subject.
I		1874	107-115	Diopsis.*
II		1874	116	Echinomyia.*
III	2	1874	235-242	Diptères nouveaux (miscellaneous).*
IV	3	1874	451-468 (1	col. pl.) Rutilia and Formosia.*
V	4	1875	237-248	Asilidæ. 4 N. A. sp.
VI	5	1875	469-482	Sphixea and Volucella. 10 N. A. sp.
VII		1875	483-488	Cyphomyia. 1 N. A. sp.
VIII	6	1876	389-400	Phasidæ, etc. 1 N. A. sp.
IX	7	1877	35-48	Somomyia. 3 N. A. sp.
X	8	1877	243-259	Somomyia, continued. 9 N. A. sp.
XI	8	1877	260-262	Miscellaneous notes.*
XII	9	1878	31-40	Phumosa, Pyrellia, etc. 3 N. A. sp.
XIII		1878	40-47	Ocyptera. 5 N. A. sp.
XIV		1878	48	Miscellaneous notes, partly N. A.
XV	10	1878	213-240	Asilidæ. 9 N. A. sp.
XV	10 suite 1878		401-446	Asilidæ. 14 N. A. sp.
XVI	11	1879	183-234	Xylophagidæ and Stratiomyidæ. 18 N. A.
XVII		1879	235, 236	Notes. Laphystia.
XVIII	12	1880	85-89	Plagiocera, etc.*
XIX		1880	90-94	Diopsidæ.*
XX	13	1880	139-154	Dipt. of Persia and the Caucasus.*
XXI	14	1880	213-230	Eristalis. 7 N. A. sp.
XXII	15	1880	369-376	Notes on Tabanidæ; a few N. A. genera.
XXIII	16	1881	13-21	Nemistrinidæ. 1 N. A. gen.—Parasymmetus
XXIV		1881	22, 23	Bombylidæ.*
XXV		1881	24	Atopognathus, n. g.*
XXVI	17	1881	363-371	Miscellaneous new species.*
XXVII		1881	372-374	Notes. Eristalis zonatus.
XXVIII	18	1882	453-460	Acanthomeridæ. 2 N. A.
XXIX	19	1882	5-21	Anthomyidæ.*
XXX		1882	21, 22	Ctenostylum.*
XXXI	20	1883	61-88	Volucella. 4 N. A.
XXXII	21	1883	221-258	Syrphidæ, 1st pt.*
XXXII	22	1883	315-356	Syrphidæ, 2d pt. No. 1. 34 N. A.
XXXII	23	1884	535-560	Syrphidæ, 2d pt. No. 2. 20 N. A.
XXXII	24	1884	73-115	Syrphidæ, 2d pt. No. 3. 34 N. A.
XXXIII	25	1885	263-304	Anthomyidæ. 21 N. A.
XXXIV	26	1885	121-124	Glossina.*
XXXV	27	1885	225-246	Anomalocerati. 5 N. A.
XXXVI	28	1885	241-252	Syrphidi, addenda. 2 N. A.
XXXVII	29	1886	287-302	Tanypezidæ.*
XXXVII	29	1886	369-392.	Tanypezidi. 19 N. A.

Number.	Part.	Year.	Pages.	Subject.
XXXVIII	30	1887	17-19	Loxocera.*
XXXIX	31	1887	20-46	Stratiomyidæ and Conopidæ. 18 N. A.
XL	32	1887	203-208	Myopidi. 6 N. A.
XLI	33	1888	77-104	Tachinidæ. 14 N. A.
XLII	34	1888	253-270	Miscellaneous diagnoses. 83 N. A.
XLII	34	1889	111-134	Empidæ. 5 N. A.
XLIII	35	1889	313-320	Cyrtidæ. 1 N. A.
XLIV		1889	321-328	Therevidæ.*
XLV	36	1890	261-296	Dolichopididæ. 8 N. A.
XLVI	37	1892	321-375	Bombyliidæ. 19 N. A.

Notes on North American Diptera, with new genera and species, published in Bulletin de la Société entomologique de France, as follows :

Year.	Pages.	Subject.
1875	clxxiv (196)	Thevenimyia californica.
1877	xxvi (38)	Carlottæmyia mœrens.
1877	lxxiii (101)	Macroceromys.
1879	l, li (64)	Merapioidus villosus.
1879	86	Parasymmictus.
1879	164, 165	Notes on Arthropeas and Glutops.
1879	231, 232	Corrections to article in Annales, 1879, 183-234.
1880	5	Megalemyia argyropasta, Acanthomera rubriventris.
1880	62, 63	Phylomydas phyllocerus, Enoplempis mira, Megacittarus argenteus.
1882	4	Syrphidæ.
1882	19-21	Corrections; Lycastirrhyncha, etc.
1882	78, 79	Eurhinomallota metallica.
1882	112	Myelaphus melas, Enoplempis cinerea.
1883	35	Proboscimyia siphonina.
1884	xxix (34, 35)	Mikimyia furcifera.
1884	42	Cholomyia inæquipes.
1884	95	Ancylogaster armatus.
1884	xcvii	Euceratomyia Will., note.
1884	cxxxvi	Merapioidus; reply to Williston, Wien. Ent. Zeit., 1884, 282.
1885	clxvi (sep. 1)	Stictomyia longicornis, Dimorphomyia calliphoroides.
1885	sep. 1-7	Rhamphiniina dubia, Rhynchodexia tenuipes, Siphoniomyia melas.
1886	clxvii, clxviii	Notes on Osten Sacken's Acanthomeridæ in Biologia.
1886	sep. 1-4	Rhabdopselaphus mus.
1887	lx	On Eclimus, Epibates and Thevenimyia.
1887	cxxi-cxxiii	Notes on Williston's Synopsis N. A. Syrphidæ.
1887	clxxii-clxxiv	(180-182) Diagnoses of Muscidæ, several species.
1888	xxiv et seq.	Psilopodinus, Spatichira, etc.
1888	cvi, cvii	Corrections.
1888	clxxxiii	Notes on Archilestes; Pseudarchilestes.
1892	xxxvi-xxxviii	Notes on Williston's synonymy in Biologia.

Note.—Bigot's main work, as will be seen from the tables above, is in the form of a long series of articles in the Annales Soc. ent. France (quoted herein merely as "Annales"), interspersed chronologically with fragments in the Bulletin of the same society. Owing to Bigot's peculiar, complicated and inconsistent system of numbering his contributions, it has been almost impossible for

me to find them all, but I believe I have succeeded. I have seen no correct collation. Sometimes his Roman numerals stop and remain the same for several papers, then again the numbering in "parts" becomes stationary while the other goes on, and in two cases two papers have both the same (XXXVII, part 29, and XLII, part 34).

In the Bulletin the confusion is worse confounded. This publication appears to have been for some time regularly published in two forms, one numbered in Arabic, and the other differently paged in Roman. I am unable to decipher all the peculiarities of this, but am obliged to refer partly to one, partly to the other, and occasionally to separates, as my copies run, or as I find indications in the references of others. I possess all the papers of the Annales series, and all but two small ones of the Bulletin series; but the accumulation was the work of ten years.

The work of Bigot should not be underestimated. He had a fine collection, and his types are now the property of Mr. G. H. Verrall. It is only a question of time until they will be elucidated; in fact, this has already been done for the Calyptratae (excl. of Anthomyiidae) by Brauer, and for the Pupipara by Speiser. As the descriptions stand, it is often impossible to determine the species from them alone. It is not unlikely that some of them have been assigned to synonymy too hastily.

Biologia Centrali-Americana.

For convenience of reference, I give a complete collation of the parts of this great work.

Volume I. Cecidomyiidae to Empididae. Pp. 1-216, 3 col. pl., by C. R. Osten Sacken.

Dates—pp. 1-24, July, 1886; 25-48, Aug., 1886; 49-72, Oct., 1886; 73-104 Nov., 1886; 105-128, Dec., 1886; 129-160, Jan., 1887; 161-176, Feb., 1887; 177-208, Mar., 1887; 209-216, April, 1887.

Volume I, Supplement. Pp. 217-378, 3 col. pl.

Mycetophilidae to Asilidae, pp. 217-332, by S. W. Williston.

Dates—pp. 217-248, Dec., 1900; 249-264, April, 1901; 265-272, May, 1901; 273-296, June, 1901; 297-328, Sept., 1901; 329-332, Dec., 1901.

Dolichopodidae, pp. 333 to 366, Dec., 1901, by J. M. Aldrich.

Empididae, pp. 366-376, Dec., 1901, by W. M. Wheeler and A. L. Melander.

List of Species Recorded since 1887, not enumerated in Suppl., 377, 378; Dec., 1901.

Volume II. Oestridae to Hippoboscidae. Pp. 1-432, 12 col. pl., by F. M. Van der Wulp.

Dates—pp. 1-40, April, 1888; 41-56, Jan., 1890; 57-88, Feb., 1890; 89-112, Mar., 1890; 113-144, May, 1890; 145-176, June, 1890; 177-200, Aug., 1890; 201-208, Nov., 1890; 209-224, April, 1891; 225-248, May, 1891; 249-264, July, 1891; 265-272, Dec., 1895; 273-280, Jan., 1896; 281-288, March, 1896; 289-304, May, 1896; 305-312, June, 1896; 313-320, Oct., 1896; 321-344, Dec., 1896; 345-360, Sept., 1897; 361-368, Nov., 1897; 369-376, Dec., 1897; 377-384, Oct., 1898; 385-392, Feb., 1899; 393-408, Sept., 1899; 409-416, Dec., 1899; 417-428, Feb., 1900; 429-432, Apr., 1903.

Volume II, Supplement. Pp. 433-486, 1 col. pl. Oestridae and Tachinidae, by F. M. Van der Wulp.

Dates—pp. 433-436, April, 1903; 437-486, May, 1903.

List of Species described since 1888, not enumerated in Vol. II., pp. 486-489, May, 1903.

Volume III. Syrphidæ, Conopidæ, Pipunculidæ and Platypezidæ. Pp. 1-89, 2 col. pl. By S. W. Williston.

Dates—pp. 1-56, Dec., 1891; 57-72, Feb., 1892; 73-89, May, 1892.

List of Species described since completion of volume, pp. 89-91, Aug., 1903.

Index to vols. I-III, pp. 93-127, Aug., 1903.

The last issue for each volume includes title-page, introduction, and explanation of plates, which do not interfere with the regular pagination of the text.

Bilimek, Dominik.

Fauna der Grotte Cacahuamilpa in Mexico. Verhandl. Zool.-Bot. Ges., 1867, p. 901.

Pholcomyia leucozona, n. g. and sp.

Bosc D'Antic, Louis A. G.

Ceroplatus carbonarius, from Carolina, described in Dictionnaire d'Histoire Naturelle, Paris, 1802-04, pub. by Déterville et Roret; the same is in Nouveau Dict. D'Hist. Nat., Paris, 1816-19.

Brauer, Friedrich,

Monographie der Oestriden. Wien, 1863, 292 pp., with 10 plates.

This classic monograph contains descriptions of all the Oestridæ at that time known from North America. Only one is new, *Cutcrebra scutellaris*. Beschreibung neuer und ungenügend bekannter Phryganiden und Oestriden. Verhandlungen der Zool.-Bot. Ges. zu Wien, 1875, 75.

Hypoderma bonassi, on the American bison.

Die Zweiflügler des Kaiserlichen Museums zu Wien. In the Denkschriften der Mathematisch-Naturwissenschaftlichen Classe der Kaiserlichen Akademie der Wissenschaften.

I. In Band XLII, 1880.

1. Die Kaiserliche, Winthem'sche, Wiedmann'sche und Egger'sche Sammlung. Pp. 105-107.
2. Bemerkungen zur Systematik der Dipteren. Pp. 108-118.
3. Die Europäischen Arten der Gattung *Tabanus* L. s. str., etc. Pp. 119-210, six plates.

II. In Band XLIV, 1882.

1. Versuch einer Charakteristik der Gattung der Notacanthen (Ltr.), mit Rücksicht auf die . . . von J. R. Schiner aufgestellten neuen Gattungen. Pp. 59-89.
2. Vergleichende Untersuchungen der Flügelgeädern der Dipteren-Familien nach Adolph's Theorie. Pp. 90-97, two plates.
3. Charakteristik der mit *Scenopinus* verwandten Dipteren-Familien und Gattungen. Pp. 98-110.

III. In Band XLVII, 1883.

1. Systematische Studien auf Grundlage der Dipteren-Larven nebst einer Zusammenstellung von Beispielen aus der Literatur über dieselben und Beschreibung neuer Formen. Pp. 1-100, five plates.

The number on *Notacantha* contains *Cynipimorpha bilimecki* n. g. et sp. and *Myxosargus fasciatus* n. sp., from Mexico. The last number, on the dipterous larvæ, is a great work. The numbers on classification represent extensive research, and the system of Brauer seems to be widely accepted in Europe at present; but I agree with Osten Sacken that classification is not the field in which Brauer has done his best work.

See continuation of the series by Brauer and von Bergenstam

Systematische-zoologische Studien. Sitzungsberichte d. Kaiserl. Akad. d. Wissenschaften, xci, 237-414, 1 plate; 1885.

Asilus mydas and *Calobata ichneumonea*, n. sp. from Mexico.

Beiträge zur Kenntniss der Muscaria schizometopa. Sitzungsbericht. d. Kaiserl. Akad. der Wiss., Math.-Naturwiss. Classe, in three parts:

I. Band cvi, 329-382; July, 1897.

II. Band cvii, 493-546; June, 1898.

III. Band cviii, 495-529; June, 1899.

These articles give a report on the types of Bigot's species in the families of the Calyptratae, except Anthomyiidae. Nearly all of Bigot's species in this group are elucidated. There are a few notes also on types of Macquart and Desvoidy.

Brauer, Friedrich, and Bergenstam, J. Edlen von.

Die Zweiflügler des Kaiserlichen Museums zu Wien. Denkschriften d. Kaiserl. Akademie der Wissenschaften, Math.-Naturwiss. Classe. There are seven numbers of this series, of which the first three are by Brauer alone, noticed above. The last four constitute the following series:

Vorarbeiten zu einer Monographie der Muscaria schizometopa (exclusiv Anthomyiidae).

IV. Band lvi, pp. 69-180, 11 plates; 1889.

V. Band lviii, pp. 305-446; 1891.

VI. Band lx, pp. 89-240; 1893.

VII. Band lxi, pp. 537-624; 1894.

Many new genera of Tachinidae, Muscidae, Dexiidae and Sarcophagidae. A few North American species. As I have indicated at the beginning of the catalogue of Tachinidae, this work is defective in its conception, in that the characters used for generic definition are often of less than specific value. Nevertheless it is indispensable to the student of these families. It is referred to as "Zweifl. d. Kaiserl. Mus."

Brodie, Wm.

Canadian Galls and their Occupants. Biological Review of Ontario, i, 1894:

I. Pp. 13-15. *Diplosis erigeroni*.

II. Pp. 44-46. *Diplosis helianthi*.

III. Pp. 73-75. *Diplosis thurstoni* and *helianthi-bulla* Walsh.

IV. Pp. 109-111. *Diplosis monardae*.

Brown, Barnum.

Two new Species of Asilids from New Mexico. Kans. Univ. Quarterly, vi, 103, 1897.

Nusa abdominalis and *similis*.

Brues, Chas. T.

Peculiar Tracheal Dilatations in *Bittacomorpha clavipes* Fabr. Biological Bulletin, i, 155-160, fig., 1900.

A New Species of *Dolichopus*. Entomological News, xii, 44, 45, fig.; Feb., 1901.

D. sphaeristes, from Texas.

Two New Myrmecophilous genera of aberrant Phoridae from Texas. American Naturalist, xxxv, 337-356, figs. and bibliography; May, 1901.

Commoptera solenopsidis and *Ecitomyia wheeleri*; notes on related genera and species.

New and little known Guests of the Texan Legionary Ants. *American Naturalist*, xxxvi, 365-378, figs.; 1902.

Acontistoptera melanderi and *Xainonotum hystrix*.

Notes on the Larvæ of some Texas Diptera. *Psyche*, ix, 351-354, figs.; June, 1902.

Phora epeiræ n. sp., and several species of larvæ.

A dextiid Parasite of the Sowbug. *Ent. News*, xiv, 291; Nov., 1903.

Melanophora roralis Linn.; reared from *Porcellio* sp.

See also Melander and Brues.

Burgess, Edward.

Description of *Oscinis trifolii* and *malvæ*, in Report Comr. of Agriculture for 1879, 201, 202.

These are referred to *Agromyza trifolii* and *jucunda* by Coquillett.

Two Interesting American Diptera. *Proc. Boston Soc. Nat. Hist.*, xix, 320-324, 1 plate; Feb. 27, 1878.

Glutops (n. g.) *singularis* and *Epibates osten-sackenii*, n. sp.

Cannon, W. A.

The Gall of the Monterey Pine. *American Naturalist*, xxv, Oct., 1900, 801-810, figs.

A botanical study of the gall of *Cecidomyia pini-radiatæ*.

Chagnon, G.

Études Préliminaires sur les Syrphides de la Province de Quebec. Chicotini, Quebec, 1901, 75 pp. Originally published in parts in "Le Naturaliste Canadien," 1901; I quote the separate edition.

No new species.

List of Canadian Diptera. *The Entomological Student*, Philadelphia. Vol. II, 5-8 and 13-15.

Mostly from Montreal and vicinity; no new species.

Chittenden, F. H.

Some Insects Injurious to the Violet, Rose, and other Ornamental Plants. *Bull.*, 27, n. ser., Division of Entomology, U. S. Department of Agriculture; 114 pp., figs.; 1901.

Life history of *Diplosis violicola* and *Sciara inconstans*.

Some Insects Injurious to Vegetable Crops. *Bulletin* 33, new series, Division of Entomology, Dept. of Agriculture, 1902. 117 pp., many figs.

Life history of *Psila rosæ*, *Scaptomyza (Drosophila) flavicola*, *adusta* and *graminum*, and *Phorbia fusciceps*.

A Brief Account of the Principal Insect enemies of the Sugar Beet. *Bull.*, 43, Division of Entomology, 1903, 71 pp.

Contains life history of *Pegomyia vicina* and *Phorbia fusciceps*.

Clark, Bracy.

Observations on the Genus *Oestrus*. *Transactions of the Linnæan Society*, III, 1797.

Oestrus cuniculi, n. sp., from Ga.

An Essay on the Bots of Horses and other Animals. London, 1815, with two plates.

Cuterebra horripilum and *Cephenomyia phobifer* from N. A.

Addenda to Essay on Bots, 1848, with 1 plate.

Cuterebra atrox, from Mexico.

Of the Insect called Oistros by the Ancients, etc. Trans. Linn. Soc., xv, 402, 1826.

Cuterebra fontinella, from Ill.

Note.—Austen has published notes on some of Clark's species; see his papers.

Cockerell, T. D. A.

Notes on some Species of Gall-Gnats. The Entomologist, London, 1890, 278.

Cecidomyia alticola and *frater*.

Trypeta bigeloviae n. sp. Entomologist's Monthly Magazine, December, 1890, 224.

A *Cecid* bred from Coccidæ. The Entomologist, London, 1892, 280.

Diplosis coccidarum, from Jamaica.

Cecidomyia atriplicis n. sp. American Naturalist, 1895, 766.

New Species of Insects taken on a Trip from the Mesilla Valley to the Sacramento Mts., N. M. Jour. N. Y. Ent. Soc., vi, 201-207, 1898.

Asphondylia neomexicana n. sp.; occurrence of some Diptera, p. 205, footnote.

Diplosis atriplicicola; *Lasioptera willistonii*, *ephedrae*, and *tertia*; *Asphondylia prosopis*. Annals and Mag. Nat. Hist., 1898, 321-331.

Diplosis partheniicola n. sp. The Entomologist, London, July, 1900, 201.

Asphondylia mentzeliae n. sp. The Entomologist, London; Nov., 1900, 302.

A New *Cecidomyiid* on *Gutierrezia*. Canadian Entomologist, xxxiii, 23; Jan., 1901.

Asphondylia gutierreziae, New Mexico.

Some Gall-Insects. Canadian Entomologist, xxxiv, 183, 184, 1902.

Lasioptera carbonitens and *ephedricola*, from New Mexico.

Some Insects of the Hudsonian Zone in New Mexico. Psyche, 1902, 346, 347.

No new Diptera.

Comstock, John H.

Report upon Cotton Insects. Department of Agriculture for 1879.

Phora aletiae n. sp. (syn. of *nigriceps*), pp. 209-211. The same abridged in the Report of the Department of Agriculture for 1879, with the addition of *Tachina fraterna* n. sp. (syn. of *Frontina aletiae*), p. 303.

Report of the Department of Agriculture for 1879, pp. 245, 266, 271.

Contains note on *Diastata* sp. mining leaves of corn; *Diplosis catalpa* n. sp., "The Catalpa Pod *Diplosis*"; and a bibliography of parasitic *Cecidomyiidae*.

Report on Miscellaneous Insects, in the Report of the Comr. of Agriculture for 1881 and 1882 (pub. Jan., 1893), 135-154.

Life history of *Trypeta* (*Rhagoletis*) *pomonella*, *Drosophila ampelophila* and *amana*, and *Sciara* (*Cecidomyia*) *ocellaris* O. S.; the last doubtless an error in rearing, as the species can hardly be a *Sciara*.

Comstock, John H. and Anna B.

A Manual for the Study of Insects. Ithaca, 1895. 701 pp., with plates and many figures.

The Diptera are on pp. 413-489. A useful table of families, and brief descriptions of all the lower families, with numerous illustrations. No new species.

Coquillett, D. W.

On the Early Stages of the Dipterous Fly, *Chrysophila fœda* Loew. Canadian Entomologist, xv, 112, 113; June, 1883.

Monograph of the Lomatina of North America. Canadian Entomologist, xviii, 81-87; May, 1886.

• *Eucessia* n. g.; several new species.

The North American Genera of Anthracina. Canadian Entomologist, xviii, 157-159; 1886.

Mancia nana new genus and species.

The North American Species of Toxophora. Entomologica Americana, i, 221, 222; March, 1886.

T. pellucida and *maxima* n. sp.

Notes on the Genus *Exoprosopa*. Canadian Entomologist, xix, 12, 13; Jan., 1887.

Exoptata divisa new genus and species.

Monograph of the Genus *Anthrax* north of Mexico. Transactions of the American Entomological Society, xiv, 159-182; Oct., 1887.

Many new species.

Synopsis of the North American Species of *Lordotus*. Entomologica Americana, iii, 115, 116; 1888.

L. miscellus, *zona* and *apicula*.

The Corn Worm or Boll Worm in California. Insect Life, i, 331, 332; May, 1889.

Tachina armigera n. sp.

The Dipterous Parasite of *Diabrotica soror*. Insect Life, ii, 233-236, figs.; Feb., 1890.

Celatoria diabroticæ n. sp.

A new *Rhaphiomidas* from California. West American Scientist, viii, 84-86, 1891.

Rhaphiomidas acton.

New Bombylidæ from California. West American Scientist, vii, 197-200, 1891.

Lordotus junceus and *diversus*; *Toxophora vasta*.

New Bombylidæ of the Group *Paracosmus*. West American Scientist, vii, 219-222, 1891.

Amphicosmus elegans, *Metacosmus exilis*, *Paracosmus insolens*.

A Revision of the Bombylid Genus *Aphœbantus*. West American Scientist, vii, 254-264; 1891.

Thirteen new species.

Revision of the Bombylid Genus *Epacmus* (*Leptochilus*). Canadian Entomologist, xxiv, 9-11; Jan., 1892.

Concinnus, *pellucidus*, *fumosus* n. sp.

Notes and Descriptions of Bombylidæ. Canadian Entomologist, xxiv, 123-126; May, 1892.

Exoprosopa grata; *Geron fasciola* and *capax*.

A New *Dalmanina* from California. Entomological News, iii, 150, 151; June, 1902.

D. vitiosa.

- Revision of the Species of Anthrax from America, north of Mexico. Transactions of the American Entomological Society, xix, 168-187; July, 1892.
Nineteen new species; notes on many others; table of species.
- The Dipterous Parasite of *Melanoplus devastator* in California. Insect Life, v, 22-24; Sept., 1892.
Sarcophaga opifera n. sp.
- A New Genus of Diptera Allied to Rhabdomidas. Canadian Entomologist, xxiv, 314, 315; Dec., 1892.
Apomidas trochilus new genus and species.
- Synopsis of the Asilid Genus *Anisopogon*. Canadian Entomologist, xxv, 20-22; Jan., 1893.
A. ludius, rubidus and *patruelis* n. sp.
- Synopsis of the Asilid Genus *Blacodes*. Canadian Entomologist, xxv, 33-34; Feb., 1893.
Bl. cristatus, truncus, clausus.
- Synopsis of the Asilid Genus *Dioctria*. Canadian Entomologist, xxv, 80; March, 1893.
D. parvulus and *rubidus*.
- Synopsis of the Asilid Genera *Mallophora* and *Nicocles*. Canadian Entomologist, xxv, 118-120; May, 1893.
Mallophora mcgachile and *Nicocles argentatus*.
- An Anomalous Empid. Entomological News, iv, 208-210, fig.; June, 1893.
Mythicomylia rileyi.
- A New Asilid Genus related to *Erax*. Canadian Entomologist, xxv, 175-177; July, 1893.
Efferia n. gen.; *E. rava, candida, pernicis*.
- Synopsis of the Dipterous Genus *Thereva*. Canadian Entomologist, xxv, 197-201; Aug., 1893.
Five new species.
- Synopsis of the Dipterous Genus *Psilocephala*. Canadian Entomologist, xxv, 222-229; Sept., 1893.
Ten new species.
- New North American Trypetidae. Canadian Entomologist, xxvi, 71-75; March, 1894.
Ten new species.
- Notes and Descriptions of North American Bombyliidae. Transactions of the American Entomological Society, xxi, 89-112; March, 1894.
Two new genera; many new species; tables of genera and species.
- Two Interesting new Diptera from Washington. Entomological News, v, 125, 126; April, 1894.
Criorhina johnsoni and *Ceroptatus fasciola*.
- Brachycoma davidsoni* n. sp., in an article by Anstruther Davidson, "On the Parasites of Wild Bees in California"; Entomological News, v, 172; June, 1894.
- Synopsis of the Dipterous Genus *Symphoromyia*. Journal of the New York Entomological Society, ii, 53-56; 1894.
Several new species.
- Revision of the Dipterous Family Therevidae. Journal of the New York Entomological Society, ii, 97-101; Sept., 1894.
Metaphragma and *Nebritus*; six new species.

A New Anthrax from California. Journal of the New York Entomological Society, II, 101, 102; Sept., 1894.

A. edwardsii.

A Synopsis of the Dipterous Genus Phora. Canadian Entomologist, XXVII, 103-107; April, 1895.

Table and four new species.

A New Volucella from Washington. Entomological News, VI, 131, 132; April, 1895.

V. kincaidii.

New Tachinidæ with a slender Proboscis. Canadian Entomologist, XXVII, 125-128; May, 1895.

Isoglossa n. gen.; five new species.

On the Occurrence of the Tachinid Genus Heteropterina Macq. in North America. Entomological News, VI, 207, 208; June, 1895.

H. nasoni.

Notes and Descriptions of Tachinidæ. Journal of the New York Entomological Society, III, 49-58; June, 1895.

Three new genera and eighteen new species.

On the Tachinid Genus Acroglossa Will. Psyche, VII, 261, 262; July, 1895.

No new species.

New North American Mycetophilidæ. Canadian Entomologist, XXVII, 199-201; Aug., 1895.

Five new species.

The Bombylid Genus Acreotrichus in America. Psyche, VII, 273, 274; Aug., 1895.

A. americana.

New Genera and Species of Tachinidæ. Journal of the New York Entomological Society, III, 97-107; Sept., 1895.

Five new genera; sixteen new species.

A Cecidomyiid that lives on Poison Oak. Insect Life, VII, 348, 1895.

Cecidomyia rhois n. sp.

Two Dipterous Leaf-Miners in Garden Vegetables. Insect Life, VII, 381-384, figs.; 1895.

Drosophila flavicola MEIG. and *Trypeta fratria* LOEW; life histories.

Two Dipterous Insects Injurious to Flowers. Insect Life, VII, 399-402, figs.; 1895.

Phytomyza chryanthemi KOWARZ and *Diplosis caulicola* n. sp.; life histories.

A New Wheat Pest. Insect Life, VII, 406-408, fig.; 1895.

Sciara tritici.

Diptera of Florida. Proceedings of the Academy of Natural Sciences of Philadelphia; 1895, 303-340, in an article by C. W. Johnson.

Coquillett described *Pseudochata* n. gen., and thirteen new species.

Revision of the North American Empidæ. Proceedings of the United States National Museum, XVIII, 387-440. Cover shows date 1896, but separates were distributed late in 1895.

Tables of genera and species; four new genera and many new species.

New Culicidæ from North America. Canadian Entomologist, XXVIII, 43, 44; Feb., 1896.

Culex signifer and *tarsalis*; *Megarhina rutila*.

A New Sub-Family of Ephydridæ. Entomological News, vii, 220, 221; Sept., 1896.

Lipochæta slossonæ new genus and species.

A New Dipterous Genus Related to Gnoriste. Proceedings of the Entomological Society of Washington, iii, 321, 322, fig.; Oct. 6, 1896.

Eugnoriste occidentalis new genus and species.

Parasites of Spiders' Eggs. By Anstruther Davidson. Ent. News, vii, 320; Dec., 1896.

Description of *Gaurax araneæ* n. sp., by Coquillett.

List of the Mosquitoes of the United States. Bulletin 4 new series, Division of Entomology, Dept. of Agriculture; 1896, pp. 22-24.

Synonymical list, with localities; no new species.

Diptera from the Mammoth Cave. American Naturalist, xxxi, 384-387; May, 1897.

Three new species.

The Raspberry-Cane Maggot. Canadian Entomologist, xxix, 162, 163; July, 1897. In an article by M. V. Slingerland.

Phorbia rubivora n. sp.

Revision of The Tachinidæ of America, north of Mexico. Bull. No. 7, Technical Series, Division of Entomology; 1897, 154 pp.

Many new species; twelve new genera.

On *Cuterebra emasculator*, with descriptions of several allied Species. Canadian Entomologist, xxx, 9-11; January, 1898.

Five new species of *Cuterebra*.

Synopsis of the Asilid Genus *Ospricerus*. Entomological News, ix, 37; Feb., 1898.

O. ventralis.

On the Dipterous Genus *Eusiphona*. Canadian Entomologist, xxx, 53, note; March, 1898.

No new species.

Notes and Descriptions of Oscinidæ. Journal of the New York Entomological Society, vi, 44-49; March, 1898.

Table of genera and many new species.

Additions to my Synopsis of the Tachinidæ. Canadian Entomologist, xxx, 233-237; Sept., 1898.

Nine new species.

On the Dipterous Family Scatophagidæ. Journal of the New York Entomological Society, vi, 160-165; Sept., 1898.

Three new genera and about a dozen species.

A new Dipterous Genus Belonging to the Therevidæ. Journal of the New York Entomological Society, vi, 187, 188; Sept., 1898.

Henicomys hubbardi.

New Species of Sapromyzidæ. Canadian Entomologist, xxx, 277-280; Nov., 1898.

Fourteen new species.

The Buffalo Gnats or Black-Flies of the United States. Bulletin 10, new series, Division of Entomology, 66-69, figs.; 1898.

Bracteatum and *griscum* n. sp.

- On the Habits of the Oscinidæ and Agromyzidæ Reared at the U. S. Dept. of Agriculture. Bull. 10, new series, Division of Entomology, 70-79; 1898.
Habits of many species; very valuable.
- A Cecidomyiid Injurious to Seeds of Sorghum. Bull. 18, new series, Div. of Entomology, Department of Agriculture; p. 81; 1898.
Diplosis sorghiola.
- Description of a New Psilopa. Canadian Entomologist, xxxi, 8; Jan., 1899.
Psilopa petrolei, from California.
- A New Dipterous Family Related to the Chironomidæ. Entomological News, x, 60, 61, fig.; March, 1899.
Stenoxenus johnsoni, which I place in the Chironomidæ.
- New Genera and Species of Dexidæ. Journal of the New York Entomological Society, vii, 218-222; Sept., 1899.
Eight new species; three new genera.
- New Genera and Species of Nycteribidæ and Hippoboscidæ. Canadian Entomologist, xxxi, 333-336; Nov., 1899.
Pterellepsis, *Aspidoptera* and *Pseudolfersia* n. gen.; four new species.
- Notes and Descriptions of Trypetidæ. Journal of the New York Entomological Society, vii, 259-268; Dec., 1899.
Paracantha n. gen., and 17 new species.
- Report on Diptera of the Commander Islands. Extracted from "The Fur Seals and Fur Seal Islands of the North Pacific Ocean," iv, 341-346, Washington, 1899.
Eutanypus n. gen.; eight new species.
- New Genera and Species of Ephydridæ. Canadian Entomologist, xxxii, 33-35; Feb., 1900.
Nostima and *Paratissa* n. gen.; five new species.
- Notes and Descriptions of Ortalidæ. Journal of the New York Entomological Society, viii, 21-25; March, 1900.
Paradopa new genus; ten new species.
- Two New Genera of Diptera. Entomological News, xi, 429, 430, figs.; April, 1900.
Hesperodes johnsoni and *Traginops irrorata*, both from New Jersey.
- New Scenopinidæ of the United States. Entomological News, xi, 500, 501; June, 1900.
Metatrichia new genus; *Pseudatrichia unicolor* and *griseola*, both from New Mexico.
- Report on a Collection of Dipterous Insects from Puerto Rico. Proceedings of the United States National Museum, xxii, 249-270; 1900.
Three new genera and fifteen new species; many other species reported.
- Two New Cecidomyians Destructive to Buds of Roses. Bulletin 22, new series, Division of Entomology, Dept. of Agriculture; 1900, pp. 44-48, figs.
Diplosis rosivora and *Neocerata* (n. gen.), *rhodophaga*; life histories.
- A New Violet Pest. Bulletin 22, new series, Division of Entomology, Dept. of Agriculture; 1900, pp. 48-51, figs.
Diplosis violicola n. sp.; fuller life history in Bull. 27, 47-50; 1901.
- Synoptic Tables of North American Mosquitoes. Bulletin 25, new series, Division of Entomology, Dept. of Agriculture; 1900, pp. 19-22.

No new species; these tables are printed also in Circular No. 40, Division of Entomology, and with slight changes in a second edition of the same, and in Howard's book "Mosquitoes."

Diptera of the Harriman Alaska Expedition. Proceedings of the Washington Academy of Sciences, II, 389-464; Dec. 7, 1900.

One new genus, 63 new species; 276 species listed in all.

A New Genus of Ortalidæ. Entomological News, XII, 14; Jan., 1901.

Zacompsia fulva.

Three New Species of Diptera. Entomological News, XII, 16-18; Jan., 1901.

Chironomus halteralis, *Helicobia quadrisetosa*, *Drosophila buskii*.

Diptera of the Hudsonian Zone, New Mexico. Psyche, IX, 149, 150; Jan., 1901.

Limnophila costata and *Rhypholophus cockerellii* new; 21 other species.

The Ant-Decapitating Fly. Proceedings of the Entomological Society of Washington, IV, 501; July 2, 1901.

Apocephalus pergandei n. gen. and sp.; the biological part of the article is by Pergande.

A New Anthomyiid Injurious to Lupines. Entomological News, XII, 206, 207; Sept., 1901.

Phorbia lupini.

Three New Species of Culicidæ. Canadian Entomologist, XXXIII, 258-260; Sept., 1901.

Psorophora howardii, *Culex currici*, *Aedes smithii*.

Types of Anthomyid Genera. Journal of the New York Entomological Society, IX, 134-146; Sept., 1901.

No new species.

Original Descriptions of New Diptera. Bulletin 47, New York State Museum, 585, 586; Sept., 1901.

Roederioides juncta and *Zabrachia polita* new genera and species.

New Diptera in the United States National Museum. Proceedings of the United States National Museum, XXIII, 593-618; 1901.

Pycnoglossa and *Plethochata* n. gen.; many new species, especially of *Ceratopogon*.

A Systematic Arrangement of the Families of Diptera. Proceedings of the United States National Museum, XXIII, 653-658; 1901.

No new species.

Three New Species of Nematoceros Diptera. Entomological News, XIII, 84, 85; March, 1902.

Ceratopogon varicolor, *Tanypus dyari*, *Corethra brakeleyi*.

New Cyclorrhaphous Diptera from Mexico and New Mexico. Canadian Entomologist XXXIV, 195-202; Aug., 1902.

Comatacta and *Trixodes* n. gen.; 12 n. sp.; oc. of *Sicus* in N. A.

New Orthorrhaphous Diptera from Mexico and Texas. Journal of the New York Entomological Society, X, 136-141; Sept., 1902.

Eleven new species.

Three New Species of Culex. Canadian Entomologist, XXXIV, 292, 293; Nov., 1902.

C. atropalpus, *varipalpus* and *quadrivittatus*.

Diptera from Beulah, N. M. Transactions of the American Entomological Society, XXIX, 102-104; Nov., 1902.

Trochilodes skinneri n. gen. and sp.; *Pegomyia nitidula* n. sp.

New Acalyptrate Diptera from North America. Journal of the New York Entomological Society, x, 177-191; Dec., 1902.

Several new genera; many species.

New Forms of Culicidæ from North America. Journal of the New York Entomological Society, x, 191-194; Dec., 1902.

Corethrella n. gen.; several species of *Culex* and *Anopheles*.

New Diptera from North America. Proceedings of the United States National Museum, xxv, 83-126; 1902.

Meigeniella, *Paradmontia* and *Pseudapinops* n. gen.; many new species.

The Occurrence of the Phorid Genus *Aenigmatias* in North America. Canadian Entomologist, xxxv, 20-22; Jan., 1903.

Aenigmatias schwarzi n. sp., from Ariz.

The Genera of the Dipterous Family Empididæ, with Notes and new Species. Proceedings of the Entomological Society of Washington, v, 245-272; May 7, 1903.

Sixteen new species; discussion of types of genera.

A New Culicid Genus Related to *Corethra*. Canadian Entomologist, xxxv, 189-190; July, 1903.

Sayomyia nom. nov.; *Corethra pictipes* n. sp.

Four New Species of *Culex*. Canadian Entomologist, xxxv, 255-257; Sept., 1903.

C. cantator, *aurifer*, *nannus*, *discolor*.

Notes on *Culex Kelloggii* Theobald. Canadian Entomologist, xxxv, 261; Sept., 1903.

Notes on synonymy.

Eucorethra, a Genus of Culicidæ. Canadian Entomologist, xxxv, 272; Oct., 1903.

"*E. underwoodi* UNDERWOOD."

A New *Anopheles* with Unspotted Wings. Canadian Entomologist, xxxv, 310; Nov., 1903.

A. barberi.

Curtis, John.

Description of the Insects brought Home by Commander J. Clark Ross. Appendix to Ross's Voyage to the Arctic Regions; 1831.

Chironomus borealis, *Tipula arctica*, *Helophilus bilineatus*, *Tachina hirta*, *Anthomyia dubia* and *Scatophaga apicalis* new.

Curtice, Cooper.

The Larvæ of *Hypoderma bovis* DeG. Insect Life, ii, 207, 208; February, 1890.

The species now called *lineata* VILL. Curtice here advanced a new theory of the insect's habits.

Davidson, Anstruther.

The Nest and Parasites of *Xylocopa orpifex* Smith. Entomological News, iv, 151-153; May, 1893.

Argyramaba simson FAB., recorded as a parasite.

On the Parasites of Wild Bees in California. Entomological News, v, 170-172; June, 1894.

Habits of *Brachycoma davidsoni* Coq.

The Habits of Californian Bees and Wasps. Entomological News, vi, 252, 253; Oct., 1895.

Phsyoccephla affinis reared from nest of *Anthidium emarginatum*.

Parasites of Spider's Eggs. Entomological News, vii, 319, 320; Dec., 1896.

Habits of *Gaurax araneæ* Coq.

Day, Loren T.

Notes on Sciomyzidæ, with Descriptions of New Species. Canadian Entomologist, xiii, 85-89; April, 1881.

Four new species.

The Species of *Odontomyia* Found in the United States. Proceedings of the Academy of Natural Sciences of Philadelphia, 1882, 74-88.

Nine new species.

DeGeer, Charles.

Mémoires pour servir à l'Histoire des Insectes. Stockholm, 1752-78. 7 vols.

Several American species are described in the 6th volume.

Robineau-Desvoidy, J. B.

Essai sur la Tribu des Culicides. Mémoires de la Société d'Histoire Naturelle de Paris, iii, 390-413, 1 pl. Paris, 1827.

Five new species from North America.

Essai sur les Myodaires. Mémoires des Savants étrangers de l'Académie des Sciences de Paris, vol. ii. Paris, 1830, 813 pp.

This massive work contains an original systematic arrangement of all the Calyptrate and part of the Acalyptrate Muscidæ. About eighty new North American species are described. Many of the genera, after being ignored for half a century, have of late been adopted and newly defined, especially in Tachinidæ. The work is intrinsically valuable, and for its time wonderful. The characters now used for separating the genera of Tachinidæ were mostly introduced in this volume. It is very rare and expensive.

Histoire Naturelle des Diptères des Environs de Paris. 2 vols. Paris, 1863. Vol. i, xvi and 1143 pp.; vol. ii, 920 pp.

This work was published after Desvoidy's death, and contains some defects due to imperfect editing of his materials. It is devoted almost wholly to European Tachinidæ, Dexidæ, Sarcophagidæ and Muscidæ. "Contains short descriptions of a few N. A. Diptera; no new ones."—O. S.

Note.—Osten Sacken, "Record of My Life Work in Entomology," 180-192, 1903, gives an interesting and lucid account of the two main works cited above.

Dimmock, Geo.

Anatomy of the Mouth-Parts and of the Sucking Apparatus of Some Diptera. Boston, 1881; 50 pp., 4 plates.

This is generally recognized as authoritative on the subject.

Doane, R. W.

A New Trypetid of Economic Importance. Entomological News, ix, 69-72, 1 pl.; March, 1898.

Rhagoletis ribicola.

Notes on Trypetidæ, with Descriptions of New Species. Journal of the New York Entomological Society, vii, 177-193, 2 plates; Sept., 1899.

Twenty new species; notes on many others.

Additional Notes on Trypetidæ. Journal of the New York Entomological Society, viii, 47-48; March, 1900.

This is a defense of the preceding, Mr. Coquillett having erroneously relegated some of the species to synonymy.

New North American Tipulidæ. Journal of the New York Entomological Society, viii, 182-198, 2 plates; Sept., 1900.

Polyangaus n. gen.; 44 new species of *brevipalpi*.

Descriptions of New Tipulidæ. Journal of the New York Entomological Society, ix, 97-127; Sept., 1901.

Fifty-four new species of *Tipula*.

Drury, Drew.

Illustrations of Natural History, wherein are exhibited upwards of two hundred and forty figures of Exotic Insects. London, 1770-82, 3 vols.

A new edition was published by Westwood in 1837, under the title, "Illustrations of Foreign Entomology."

"Eight N. American and West Indian species are figured."—O. S.

Dufour, Leon.

Révision et Monographie du Genre *Ceroplatus*. Annales des Sciences Naturelles, 2me ser., xi, 193 *et seq.*, figs.; 1839.

Ceroplatus carbonarius, from Carolina.

Dyar, Harrison G.

Illustrations of the Larvæ of North American Mosquitoes. Journal of the New York Entomological Society, (1) ix, 177-182, 1 plate; Dec., 1901. (2) x, 194-201, 4 plates; Dec., 1902. (3) xi, 23-27, 2 plates; March, 1903.

No new species; many species described and figured in the larval stage.

The Life-History of *Uranotænia sapphirina*. Journal of the New York Entomological Society, ix, 179-182, 1 plate; Dec., 1901.

Notes on the Mosquitoes on Long Island, N. Y. Proceedings of the Entomological Society of Washington, v, 45-51; Apr. 28, 1902.

No new species; mostly biological.

Notes on the Mosquitoes in New Hampshire. Proceedings of the Entomological Society of Washington, v, 140-148; Feb. 13, 1903.

No new species; mostly biological.

Culex restuans Theobald. Entomological News, xiv, 41, 42; Feb., 1903.

Larval structure, habits, etc.

Culex atropalpus Coquillett. Entomological News, xiv, 180; June, 1903.

Larval structure and habits.

Emerton, James H.

An Internal Dipterous Parasite of Spiders. Psyche, v, 404, 1890.

Eckel, Lida S.

The Resin-Gnat *Diplosis* and Three of Its Parasites. Entomological News, xiv, 279-284, 1 plate; November, 1903.

Diplosis resinicola O. S., biology.

Erichson, W. F.

Die Henopier. Eine Familie aus der Ordnung der Dipteren. Entomographien, Heft 1, 135-174, 1 plate. Berlin, 1840.

Ocnæa micans, from Mexico.

Eschscholz, J. F.

Entomographien. Dorpat. Naturwiss. Abhandl., 1, 1823.

Empis lanicentris and *Musca obscura*, from Unalaska.



Fabricius, J. C.

Systema Entomologiæ. Flensburgi, 1775.

Mantissa Insectorum; 2 vols.* Hafniæ, 1787.

Entomologia Systematica; 4 vols. Hafniæ, 1772-94; supplement; 1798.

Systema Antliatorum. Brunsvigæ, 1805.

Brief descriptions of a considerable number of North American Diptera, especially large species from the West Indies. Wiedemann has redescribed most of them.

Fabricius, Otto.

Fauna Grœnlandica. Hafniæ et Lipsiæ, 1780.

Eighteen new species. Schiödte, "Tillæg til Rink: Grœnland," etc., has given the true interpretation of several species; Lundbeck, in "Diptera Grœnlandica," has unriddled a few more, leaving seven that cannot be recognized.

Felt, Ephraim P.

The Antennal Structure of Certain Diplosids. Psyche, VIII, 1-5, 1 plate; Jan., 1897.

Additional Notes on *Sciara*. 12th New York Report; 1897; 223-228, 1 plate.

Sciara multiseta, *pauciseta*, *agraria*, *prolifca* and *fulvicauda*. The preceding notes were published by Lintner, q. v.

Phora albidihalteris n. sp. 12th New York Report; 1897; 228, 229.

Reared from mushrooms in N. J.

Trypeta canadensis Loew. 14th Report New York State Entomologist; 1898; 160-163, biology.

Snakeworm (*Sciara* sp.). 16th Report New York State Entomologist, 922-994; March, 1901. Occurrence of snake-like masses of larvæ at Franklin, N. Y.

The Hessian Fly. 17th Report New York State Entomologist; 1902; 705-730, with figs. and extended bibliography.

Rhabdophaga salicis Schrank. 17th Report New York State Entomologist; 1902; 741-744, figs. Occurrence in N. A., and notes on biology.

Psila rosæ Fabr., the Carrot Rust Fly. 18th Report New York State Entomologist, 99-103, figs.; May, 1903.

Life history, remedies, etc.

Fitch, Asa.

An Essay upon the Wheat-fly and some Species Allied to it. Albany, 1845.

This is the first edition, which was published in the American Quarterly Journal of Agriculture and Science, vol. II, no. 2. It contains the descriptions of *Cecidomyia tritici* Kirby; *Cec. caliptera* n. sp.; *Cec. thoracica* n. sp.; *Cec. tergata* n. sp. A second edition appeared in 1846, in the Transactions of the N. Y. State Agricultural Society, vol. v. A new species, *Cec. cercalis*, is separated in this edition from *C. caliptera*, and full descriptions with figures of both are given.

The Hessian Fly. Albany, 1846 (second edition, 1847). With a plate.

Published originally in the American Journal of Agriculture and Science, vols. IV, V (1846). Reprinted with some additions in the Transactions of the N. Y. State Agricultural Society, vol. VI, pp. 316-376 (1846; in pamphlet form it bears the date of 1847).

Cecidomyia salicis n. sp., described in American Quarterly Journal of Agriculture and Science, vol. 1, p. 263.

Winter Insects of Eastern New York. In the American Journal of Agriculture and Science, vol. v, pp. 274-284. [Reprinted in Lintner's 2d N. Y. Rept., 235-244.]

N. sp.—*Culex hiemalis*, *Chironomus, nivoriundus*, *Trichocera brumalis*.

Survey of Washington County, New York. In the 9th vol. of the Transactions of the N. Y. State Agricultural Society.

Several species occurring in that locality are mentioned in a popular way.

First and Second Report on the Noxious, Beneficial and other Insects of the State of New York. Made to the State Agricultural Society, pursuant to an appropriation for this purpose from the Legislature of the State. Albany; 1856. With 4 plates.

Before the publication of the Second Report, the first had been distributed under the title of First Report, etc.; 1855. This work contains 21 new American Diptera.

Third, fourth and fifth Reports on the Noxious, Beneficial and other Insects of the State of New York, made to the State Agricultural Society, pursuant to an annual appropriation for this purpose from the Legislature of the State. Albany; 1859. With four plates and many wood-cuts.

Cuterebra cmasculator n. sp. and several *Cecidomyia*.

Sixth, seventh, eighth and ninth Reports, etc., etc. Albany, 1865. With four plates and several wood-cuts.

Contains a new edition of the papers on *Cecid. tritici* and *destructor*.

All these reports appeared successively in the Transactions of the N. Y. State Agricultural Society, and were collected and issued afterwards as separate volumes: Volume 1, containing Reports 1 and 2; Vol. II, Reports 3-5; Vol. III, Reports 6-9. Each volume has a title-page, as given above, and a complete index of the contents. In the first and third volumes the pagination runs through the whole volume; in the second volume, a new pagination begins with every report, but at the same time, the species successively discussed are numbered and these numbers run through the whole volume. For this reason, in quoting the second volume, I had to give the number of the species referred to, while in quoting the other two volumes, I give the page.—Dr. Fitch's following Reports, which I have seen up to the 12th (1867), do not contain any new species of N. A. Diptera.

Note.—The above account of Fitch's writings is quoted bodily from Osten Sacken's Catalogue. It remains to add that the Reports were continued to 1872. Lintner, in his First N. Y. Report, 1882, pp. 291-325, gives a fuller account of the writings of Fitch. As I have copied all of Osten Sacken's references, I necessarily quote his editions, although the others were often earlier.

Trupanea apivora (syn. *Promachus fitchii*) is inadvertently omitted above. It is described in the 9th Report.

Fletcher, James.

Reports of the Entomologist and Botanist, Central Experiment Farm, Canada Department of Agriculture.

A number of short references to the occurrence and habits of Diptera of economic importance are to be found in this series; the report for 1897 has a somewhat longer article on *Psila rosea*, "The Carrot Rust-Fly," 196-198, figs.

Recent Additions to the List of Injurious Insects of Canada. Transactions of the Royal Society of Canada, sec. series, 1899-1900; v, section IV, 209, 213, figs.

Occurrence and habits of, *Oscinis carbonarius* LOEW and *Psila rosæ* FAB.

Forster, J. R.

Novæ Species Insectorum. Centuria I. London, 1771.

Tabanus americanus.

French, G. H.

A Parasite the Supposed Cause of Some Cases of Epilepsy. Canadian Entomologist, xxxii, 263, fig.; Sept., 1900.

Gastrophilus epilepsalis n. sp., described from small larvæ.

Fyles, T. W.

Description of a Dipterous Parasite of Phylloxera vastatrix. Canadian Entomologist, xiv, 237, fig., 1882; further note, xv, 83, 84, 1884.

Cecidomyia grassator n. sp.

Trypeta solidaginis Fitch, and Its Parasites. Canadian Entomologist, xxvi, 120-122; May, 1894.

No new Diptera.

Quebec Diptera. Canadian Entomologist, xxxv, 234; August, 1903.

45 species from the Province of Quebec; none new.

Garman, H.

The American Frit-Fly. Agricultural Science, v, 67-69, 1891.

Oscinis variabilis? LOEW (since referred to *O. carbonarius* LOEW); biology.

The Bot-Flies of the Horse. Annual Report Kentucky Experiment Station, 1894.

No new species.

The Hessian Fly. Dangerous Mosquitoes in Kentucky. Bulletin 96, Kentucky Experiment Station.

No new species; popular account.

Gerstaecker, A.

Beitrag zur Kenntniss der Henopier. Stett. Ent. Zeitung, 1856, 339-361.

Eulonchus smaragdinus.

Beitrag zur Kenntniss exotischer Stratiomyiden. Linnæa Entom., xi, 261-350, 1 plate; 1857.

Six new species.

Beschreibung einiger ausgezeichneten neuen Dipteren aus der Familie Muscarie. Stett. Ent. Zeitung, 1860, 163-208, 1 plate.

Pyrgota vespertilio and *pterophorina*, *Toxotrypana curvicauda*, *Diacrita costalis*.

"Die Zweite deutsche Nordpohlfahrt in der Jahren 1869-70. Leipzig, 1874. Hymenoptera and Diptera by Gerstaecker; the latter are represented by four species, collected in East Greenland, lat. 73-75 degrees; *Tipula truncorum* MEIG., *Echinomyia anea* STÆG., *Cynomyia alpina* ZETT., and *Calliphora grandlandica* ZETT."—O. S.

Giglio-Tos, Ermanno.

Bolletín dei Musei di Zoologia ed Anatomia comparata della R. Università di Torino:

- Vol. V, No. 84, July 18, 1890, 4 pp., 1 pl.
 VI, 102, May 28, 1891, 4 pp.
 VI, 108, Sept. 20, 1891, 6 pp.
 VII, 117, Mar. 18, 1892, 4 pp.
 VII, 118, Mar. 22, 1892, 3 pp.
 VII, 123, June 1, 1892, 7 pp.
 VII, 132, Oct. 20, 1892, 10 pp. (two parts).
 VIII, 147, May 20, 1893, 11 pp.
 VIII, 158, July 1, 1893, 14 pp.
 XI, 224, Jan. 27, 1896, 5 pp.
 XII, 276, Feb. 18, 1897, 3 pp.

Contents of the preceding, by number (all Mexican and Central American) :

- No. 84, *Ditomyia zonata* and *mexicana*.
 No. 102, Diagnoses of twelve Stratiomyidæ.
 No. 108, *Berismyia*, *Rhopalosyrphus*, *Omegasyrphus*, *Megametopon* n. gen.
 No. 117, *Camerania* n. g. (see *Volucella macrocephala*).
 No. 118, Notes on *Rhopalosyrphus* and *Omegasyrphus*.
 No. 123, diagnoses of 31 species of Syrphidæ.
 No. 132 (two numbers exactly alike in title, but with different contents), 30 diagnoses of Syrphidæ and Conopidæ.
 No. 147, diagnoses of 47 species of Calyptrata; 4 new genera.
 No. 158, seven genera, many species, of *Cyclorhapha*.
 No. 224, *Pityocera festæ*.
 No. 276, syn. of *Pityocera festæ* with *Dicrania cervus* WIED.

The preceding numbers, except the last two, are supposed to be superseded by the following :

Ditteri del Messico. Memoria della Reale Accademia delle Scienze di Torino, Serie II :

- Parte I. Stratiomyidæ-Syrphidæ. Tom. XLIII, 72 pp., 1 plate; 1892.
 Parte II. Syrphidæ-Conopidæ-Pipunculidæ. XLIII, 79 pp., 1 pl.; 1892.
 Parte III. Muscidæ Calyptrata. XLIV, 76 pp., 1 pl.; 1893.
 Parte IV. Calyptrata and Acalyptrata. XLV, 73 pp., 1 pl.; 1895.

Many Mexican genera and species. I am unable to give the original pagination.

Giles, Geo. M.

A Handbook of Gnats or Mosquitoes. Second edition, London, 1902. 530 pp.; many plates and figures.

The systematic part of this is practically an abridgement of Theobald's Monograph, and contains descriptions of most of the North American species—all that were known at that time.

The first edition was a different book, with less systematic work. It contained one new North American species, *Culex willistonii*, which Coquillett has since referred to his *tarsalis*.

Gillette, C. P.

A New Cecidomyiid Infesting Box Elder. Psyche, 1890, 392, 393.

Cecidomyia negundinis.

Glover, Townsend.

Manuscript Notes from My Journal: or Illustrations of Insects Native and Foreign. Diptera or Two-Winged Flies. Washington, 1874, 4to, pp. iii, pl. I-XII and pl. A, pp. 120. Forty-five copies printed.

No new species: notes on the habits of some species.

Grænicher, S.

The Syrphidæ of Milwaukee Co., Wis. Bulletin of the Wisconsin Natural History Society, n. ser., 1, 3; July, 1900.

No new species (not seen).

Gray, G. R.

Diptera in E. Griffith's Animal Kingdom. London, 1824-33. 16 vols. Several N. A. species are figured in the 15th volume, 1832. "The descriptions by Gray are very incomplete."—O. S.

Grote, August R.

Description of Two New Species of North American Brachycerous Diptera. Proceedings of the Entomological Society of Philadelphia, vi, 445; 1866-67. *Sparnopolius coloradensis* and *cumatilis*.

Guérin-Ménéville, F. E.

"Note sur deux Insectes Parasites de la cochenille qui font un grand tort à cette culture en Amérique. (Read in the Academy of Sciences in Paris on the 13th of Nov., 1848. Conf. Guérin's Revue Zoologique, 1848, p. 350.)"—O. S.

Iconographie du Règne Animal de G. Cuvier, etc. Paris, 1829-44. The insects are in the seventh volume.

Leptis servillei, *Calobata ruficeps*, *Toxophora americana*, *Cuterebra americana* (the last may be South American).

Hagen, Hermann A.

A New Species of *Simulium*, with a Remarkable Nymph Case. Proceedings of the Boston Society of Natural History, xx, 305; 1879.

Simulium pictipes.

List of Anthomyidæ Examined by R. H. Meade, Esq., Bradford, England. Canadian Entomologist, xiii, 43-51; 1881.

List of Sarcophagidæ Examined by R. H. Meade, Esq., Bradford, England. Canadian Entomologist, xiii, 146-150; 1881.

The two preceding papers contain only some rather off-hand comments on the collections sent to England by Hagen; no new species.

Entomological Notes. Canadian Entomologist, xxx, 37; 1881 (*Cecidomyia* sp.).

On *Simulium*. Canadian Entomologist, xiii, 150, 151; 1881.

Trypeta cerasi Linné. Canadian Entomologist, xv, 159, 160; 1883.

Simulium Feeding upon Chrysalids. Ent. Monthly, Mag., xix; 1883, 254, 255.

On the Hessian Fly in Italy. Canadian Entomologist, xvii, 129-131; 1885.

Celopa frigida Fall. Canadian Entomologist, xvii, 140, note.

On *Cecidomyia liriodendri*, Canadian Entomologist, xviii, 159; 1886.

Haldeman, S. S.

Description of several new and interesting Animals. American Quarterly Journal of Agriculture and Science, vi, 193, 1847. Reprinted in the Proc. Boston Soc. Nat. Hist., January, 1859.

Cecidomyia robinia n. sp.

Harrington, W. Hague.

Occupants of the Galls of *Eurosta solidaginis* Fitch. Canadian Entomologist, xxvii, 197-198, 1895.

No new species.

Harris, Thaddeus W.

"Catalogue of the Insects of Massachusetts. In Prof. Hitchcock's Report on the Geology, Botany and Zoology of Massachusetts.

Professor Hitchcock's Report had two editions; in the first (1833), Dr. Harris mentioned only the generic names of the insects, adding the number of species belonging to each genus. In the second edition (1835), the specific names are also given; many of them are mere collection names, never having been published.

"A Treatise on some of the Insects of New England, which are injurious to Vegetation. Second edition. Boston, 1852.

The first edition of this work was published in 1841, under the title of A Report on the Insects of Massachusetts, Injurious to Vegetation. The second edition contains many additions.

"A Treatise on Some of the Insects Injurious to Vegetation. Third edition. Boston, 1862. With 8 plates and 278 wood-cuts.

Was published at the expense of the Commonwealth of Massachusetts and is provided with notes by different authors; these on the Diptera are by C. R. Osten Sacken. The quotations in the present volume are from this edition.

"Entomological Correspondence. Edited by Samuel Scudder. Boston, 1869.

Contains on pp. 335, 336, descriptions of *Musca harpyia* HARRIS (syn. *Musca domestica* L.) and *Musca familiaris* HARRIS (apparently the same as the European *Pollenia rudis*). Quoted from O. S.

Harris, H. F.

The Eggs of *Psorophora ciliata*. Entomological News, xiv, 232, 233; 1903.

Hart, Chas. A.

On the Entomology of the Illinois River and Adjacent Waters. First Paper. Bulletin of the Illinois State Laboratory of Natural History, iv, Article vi, pp. 149-280, with 14 plates. The Diptera extend from p. 184 to p. 270, with 10 plates. Springfield, Ill., 1895.

Contains a large amount of valuable and interesting information about the aquatic dipterous larvæ, many species being described and figured. No new species.

Harvey, F. L.

The Currant Fly. Bulletin 35, Maine Experiment Station; May, 1897. 8 pp. and plate.

Epochra canadensis LOEW, habits, etc.

Report Entomologist and Botanist, in the Annual Report Maine Experiment Station, 1889, 148-256, 1 plate and 11 figs.

Full life history of *Trypeta* (*Rhagoletis*) *pomonella*.

Hausmann, J. F. L.

Entomologische Bemerkungen. Braunschweig, 1799.

Syrphus trifasciatus n. sp. (syn. of *Milesia ornata*). According to Hagen, Hausmann, who afterward became a professor in Göttingen, was only sixteen years old at the time of this publication.

Herrera, A. L.

El Gusano de la Fruta. Boletín de la Comisión de Parasitología Agrícola, 1, No. 1. Mexico City, 1900.

A pamphlet of thirty pages on *Trypeta ludens*, the fruit-fly of the orange; figures and account of damage, etc.

Herrick, A.

Corethra appendiculata n. sp., in Minnesota Geol. and Nat. Hist. Survey, 1884, 10, pl. v. Larva only, and very vaguely described. (Data from Johannsen.)

Hine, J. S.

Sciara inconstans Fitch—Reared from Carnations. Entomological News, x, 201, 202, figs.; Sept., 1899.

Pangonia chrysocoma O. S. Entomological News, xi, 392; March, 1900.
Synonymy of *Goniops hippoboscoides*.

Two New Species of Tabanidæ. Canadian Entomologist, xxxii, 247; Aug., 1900.

Tabanus pruinus (afterward changed to *ohioensis*) and *thoracicus*.

Collecting Tabanidæ. Ohio Naturalist, ii, 167; Dec., 1901.

Habits of adults in several species.

Observations on Insects. Ohio Naturalist, ii, 169; Dec., 1901.

Notes on habits of *Agromyza setosa* Lw., *Bibio albipennis* and *Chrysopila ornata*.

New or Little-Known Diptera. Ohio Naturalist, ii, 228-230; March, 1902.

Pachygaster maculicornis and *Phoranthia bridwelli*; notes on several other species.

The genus *Pedicia*, with one new Species. Ohio Naturalist, iii, 416, 417; April, 1903.

P. magnifica.

Some Diptera from Arizona. Canadian Entomologist, xxxv, 244-246; Sept., 1903.

Tabanus hyalinipennis, *Myiolepta aurinota*; notes on three described species.

Tabanidæ of Ohio. Ohio Academy of Sciences, Special Papers, No. 5, 1903.

Also published as University Bulletin No. 19, series 7, Ohio State University. 63 pp., 2 plates.

Chrysops brunneus and *sackeni*; all the Ohio species redescribed.

On the life history of *Tabanus vivax*. Ohio Naturalist, iv, Nov., 1903, 2 pp.

Holmgren, A. E.

Insekten fra Nordgrönland, samlade af Prof. A. E. Nordenskiöld år 1870. Kongl. Vetenskap. Förhandlingar, 1872, No. 6, pp. 97-105.

Nine new species; thirty-nine in all.

Holstein, G. W.

Notes on *Hypoderma lineata* in Texas. Entomological News, iv, 299, 300; Nov., 1893.

Hood, Lewis E.

The Leptidæ and Bombylidæ of the White Mts. Psyche, vi, 283, 284; July, 1892.

Occurrence of about twenty species, with notes; none new.

Hopkins, A. D.

Notes on the Habits of Certain Mycetophilids, with Description of *Epidapus scabiei* n. sp. Proceedings of the Entomological Society of Washington, iii, 149-159, figs.; 1895.

Forms of So-Called Potato Scab Caused by Insects. Special Bulletin 2, West Virginia Experiment Station, 97-111, 1895; many figs.

Potato scab produced by *Epidapus scabiei*.

The Hessian Fly in West Virginia. Bulletin 67, West Virginia Experiment Station, Aug., 1900; 14 pp., 2 plates and map.

Studies in the life history of *Mayetiola destructor*.

Hough, Garry deN.

Two New American Species of Cynomyia. Entomological News, ix, 105-111, figs.; May, 1898.

C. americana and *elongata*.

A Third American Species of Cynomyia. Entomological News, ix, 165, 166, figs.; Sept., 1898.

C. hirta.

The Muscidae Collected by Dr. A. Donaldson Smith in Somali Land. Proceedings of the Academy of Natural Sciences of Philadelphia, 1898, 165-167, figs.

An important discussion of chaetotaxy; no new North American species.

Parasitic Influence on Melanoplus. By S. J. Hunter. Kansas University Quarterly, vii, 207-210, figs.; Oct., 1898.

Description of *Sarcophaga hunteri* n. sp., by Dr. Hough.

Some North American Genera of Calliphorinae. Entomological News, x, 62-66; March, 1899.

Genera defined; no new species.

Some Muscinae of North America. Biological Bulletin i, 19-33, figs.; 1899.

Muscina texana and *aurantiaca*; list of genera and species, etc.

Studies in Diptera Cyclorhapha. I. The Pipunculidae of the United States. Proceedings of the Boston Society of Natural History, xxix, 77-86; July, 1899.

Pipunculus atlanticus, *similis* and *flavomaculata*.

Synopsis of the Calliphorinae of the United States. Zoological Bulletin, ii, 283-290, figs.; 1899.

Chrysomya whecleri, *Calliphora coloradensis* and *latifrons*, *Lucilia pilatei*.

South American Muscidae in the Collection of S. W. Williston. Kansas University Quarterly, ix, 203-232, 2 plates; July, 1900.

A few which occur also in Mexico and the United States are carefully redescribed.

Howard, Leland O.

Notes on a Simulium Common at Ithaca, N. Y. Insect Life, i, 99-101; Oct., 1888.

Life history; species not named, but probably *pictipes* HAGEN.

An Ortalid Fly Injuring Growing Cereals. Insect Life, vii, 352-354, figs.; March, 1895.

Chatopsis anca WIED.; life history.

The Beet-Leaf Pegomyia. Insect Life, vii, 379-381, figs.; July, 1895.

Pegomyia vicina LINTNER; life history.

Mosquitoes and Fleas. Circular No. 13, second series, Division of Entomology, Department of Agriculture; 6 pp. of general information; Feb. 1, 1896.

The Principal Household Insects of the United States. Bulletin 4, new series, Division of Entomology, Department of Agriculture, 130 pp.; 1896. By Howard and Marlatt; several articles on common household Diptera by Howard.

Further Notes on the House-fly. Bulletin No. 10, new series, Division of Entomology, Department of Agriculture, pp. 63-65; 1898.

Treatment of manure to kill the larvæ.

Notes on House-flies and Mosquitoes. Bulletin 17, new series, Division of Entomology, Department of Agriculture; pp. 55, 56; 1898.

How to distinguish the Different Mosquitoes of North America. Circular No. 40, second series, Division of Entomology, Department of Agriculture; 8 pp. The tables are by Coquillett.

Notes on the Mosquitoes of the United States. Bulletin 25, new series, Division of Entomology, Department of Agriculture, 70 pp.; 1900.

Remarks on *Psorophora ciliata*, with Notes on its Early Stages. Canadian Entomologist, xxxii, 353-357, figs.; Dec., 1900.

Life history, well illustrated.

A contribution to the Study of the Fauna of Human Excrement. Washington Academy of Sciences, II, 541-604, many illustrations; Dec. 28, 1900.

Life histories of many flies living in excrement; very valuable. Partially summarized in Bulletin 30, n. ser., Div. of Ent., 1901, 39-45.

Diptera Bred from Cow-Manure. Canadian Entomologist, xxxiii, 42-44; Feb., 1901.

A list of twenty species, none new.

Mosquitoes; how they live, how they carry Disease, etc. New York, 1901, with many illustrations.

Transformations, habits, etc.; table and list of species by Coquillett.

Hunter, W. D.

The Dipterous Enemies of Domestic Animals and Man. Nebraska State Board of Agriculture, 1895, 288-306.

Popular account; no new species.

A Contribution to the Knowledge of North American Syrphidæ. I. Canadian Entomologist, xxvii, 87-101; April, 1896.

Four new species; many little known species redescribed.

A New Species of *Tropidia*, and Note on the Generic Position of *Melanostoma rufipes* Will. Entomological News, vii, 215, 216; Sept., 1896.

T. nigricornis, changed on p. 308 to *montana*.

A Summary of the Members of the Genus *Chilosia* Meig. in North America, with Descriptions of New Species. Canadian Entomologist, xxviii, 227-233; Sept., 1896.

Ch. signatiseta, *cyanca* and *aldrichi*; table and list of species.

A Contribution to the Knowledge of North American Syrphidæ. II. Canadian Entomologist, xxix, 121-144, 1 plate; June, 1897.

Pyritis n. gen.; twelve new species.

Hunter, Samuel J.

Parasitic Influence on *Melanoplus*. Kansas University Quarterly, vii, 205-210; Oct., 1898.

Notes on *Sarcophaga cimbicis* TOWNSEND, and description by Dr. Hough of *Sarcophaga hunteri*.

Alfalfa, Grasshoppers, Bees. Bulletin of the Entomological Department of the University of Kansas, 1898; 152 pp.

The part on Diptera, pp. 32-37, is about the same as in the preceding.

Illiger, J. C. W.

Neue Insekten. Magazin für Insektenkunde, I, 206; 1802.

Midas fulvifrons n. sp., from Georgia.

Jaenicke, F.

Neue Exotische Dipteren. Abhandlungen der Senckenburgischen Gesellschaft, VI, 311-407, 2 plates; 1867. Also published separately, 100 pp., 4to, Frankfurt, 1867. The pagination of the latter is used by Osten Sacken and repeated here.

Many new exotic Diptera, of which thirty-four are from Mexico and the United States.

Johannsen, Oskar A.

Notes on Some Adirondack Diptera Collected by MacGillivray and Houghton. Entomological News, XIV, 14-17; Jan., 1903.

Sciophila pulchra n. sp.; notes on several other species.

Aquatic Nematoceros Diptera. In Bulletin 68, New York State Museum, 328-448, 19 plates; Aug., 1903.

A very valuable work, monographic in the Simuliidæ, and containing tables for determining larvæ, etc., in several families. *Pelorempis* (n. gen.) *americana*, *Corethra albipes*, *Thalassomyia obscura*, and *Dixa modesta* (the last a syn. of *D. clavula* WILL.—Ent. News, XIV, 302).

Johnson, Chas. W.

The Puparium of *Ceria signifera*. Entomological News, IV, 91; March, 1893.

List of Diptera of Jamaica, with Descriptions of New Species. Proceedings of the Academy of Natural Sciences of Philadelphia, 1894, 271-281.

About fifty species recognized; new are *Nemotelus flavicornis*, *Chrysopila jamaicensis*, *Calobata pleuritica*, and *Leptogaster longipes* (the last changed to *clavipes*, Ent. News, VIII, 120).

A Review of the Stratiomyiæ and Odontomyiæ of North America. Transactions of the American Entomological Society, XXII, 227-278, 2 plates; July, 1895.

Seven new species; the old ones are redescribed or former descriptions quoted.

Diptera of Florida. Proceedings of the Academy of Natural Sciences of Philadelphia, 1895, 303-340.

504 species recognized, six new; also several new, described by Coquillett.

Some Notes and Descriptions of New Leptidæ. Entomological News, VIII, 117-120, figs.; May, 1897.

Chrysopila griffithi, *Symphoromyia hirta*, new; other species redesc.

Notes and Descriptions of New Syrphidæ from Mt. St. Elias, Alaska. Entomological News, IX, 17, 18; Jan., 1898.

Syrphus bryantii and *Melanostoma glacialis*; notes on four others.

Catalogue of the Diptera of New Jersey. Supplement to 27th Annual Report of New Jersey State Board of Agriculture, 1899, pp. 615-699.

About 1200 species recorded from New Jersey, mostly with exact localities and many with dates; many species figured; no new ones. This was published as a part of John B. Smith's Catalogue of the Insects of New Jersey, and the occurrence of these species is cited by me as "N. J.—Smith Cat."

Notes and Descriptions of Seven New Species and One New Genus of Diptera. Entomological News, XI, 323-328; Jan., 1900.

Sepsisoma n. g.

New North American Ortalidæ. Canadian Entomologist, XXXII, 246, 247; Aug., 1900.

Pyrgota chagnoni, *Stenopterina bicolor*, *Rivellia floridana*.

Variation in the Venation of *Analopis inconstans* O. S. Entomological News, XII, 305-307, figs.; Dec., 1901.

On the Validity of *Dasyllis affinis* Macq. Entomological News, XIII, 77, 78; March, 1902.

Remarks on *Tephronota ruficeps* and Description of a New Species. Entomological News, XIII, 143, 144, fig.; May, 1902.

Tephronota canadensis.

New North American Diptera. Canadian Entomologist, XXXIV, 240-242; Sept., 1902.

Macrocera immaculata, *Phthinia coquilletti*, *Psilocephala grandis*, and *Agromyza flaviventris*.

Some Notes, and Descriptions of Three New Leptidæ. Entomological News, XIV, 22-25, figs.; Jan., 1903.

Rhachicerus nitidus, *Xylomyia aterrima*, and *Symphoromyia cinerea*.

Diptera of Beulah, New Mexico. Transactions of the American Entomological Society XXIX, 101, 102, fig.; Feb., 1903.

Chilosia skinneri, *Cuterebra similis*, and *?Zonosema dubia*.

Two New Species of the Family Pipunculidæ. Entomological News, XIV, 107, 108; April, 1903.

Pipunculus pallipes and *Nephrocerus dacki*.

A New Genus and Four New Species of Asilidæ. Psyche, X, 111-114; June, 1903.

Ceraturgopsis n. gen.; four species of other genera.

Descriptions of Three New Diptera of the Genus *Phthiria*. Psyche, Oct.-Dec., 1903, 184, 185.

Ph. cyaniceps, *aldrichi* and *quinque-notata*.

Johnson, Willis G.

The Hessian Fly in Maryland. Bulletin 58, Maryland Agricultural Experiment Station, pp. 117-122, figs.; Sept., 1898. A general discussion of habits and remedies.

Kahl, Hugo I.

New Species of the Syrphid Genera *Mixogaster* Macq. and *Ceria* Fabr. Kansas University Quarterly, VI, 137-146; July, 1897.

Mixogaster breviventris and *Ceria willistoni*.

Karsch, F.

Die Spaltung der Dipteren-Gattung *Systropus* Wied. Zeitsch. d. Berliner Entomologischen Gesellschaft, 1881, 654-658.

Cephenus angulatus, *infuscatus* and *imbecillus* (I refer *Cephenus* to *Systropus*).

Keen, Eugene L.

Note on *Sphyracephala brevicornis*. Canadian Entomologist, xv, 200, 1883.

List of Syrphidæ taken in Fairmount Park, Philadelphia, in the Summer of 1884. Canadian Entomologist, xvi, 145-147, 1884.

List of Diptera taken in the Vicinity of Philadelphia, from 1882 to 1884, inclusive. Canadian Entomologist, xvii, 51-55, 1885.

Note.—I overlooked the existence of the last two papers until it was too late to use the data in my catalogue, which I very much regret.

Kellogg, Vernon L.

The Mouthparts of Nematocerous Diptera. Psyche, viii, 1899: (I) Jan., 303-306; (II) Mar., 327-330; (III) Apr., 346-348; (IV) May, 355-359; (V) June, 363-365.

Notes on *Blepharocera capitata*. Entomological News, xi, 305-318, figs.; Jan., 1900.

An Extraordinary New Maritime Fly. Biological Bulletin, i, 81-87, figs.; March, 1900.

Eretmoptera browni n. gen. and sp.

A New Blepharocerid. Psyche, ix, 39-41, figs.; April, 1900.

Liponeura doanci.

Food of Larvæ of *Simulium* and *Blepharocera*. Psyche, ix, 166; Feb., 1901.

An Aquatic Psychodid. Entomological News, xii, 46-49, figs.; Feb., 1901.

Pericoma californiensis KINCAID. (Described by Kincaid as *californica*.)

The Histoblasts (Imaginal Buds) of the Wings of the Giant Crane-Fly, *Holorusia rubiginosa*. Psyche, Sept., 1901, 248, figs.

The Development and Homologies of the Mouth-parts of Insects. American Naturalist; 1902; 683-706, figs. Discussion of homology in *Simulium* and *Bibiocephala*.

The Net-Winged Midges (Blepharoceridæ) of North America. Proceedings of the California Academy of Science, 3d series, iii, 187-224, 5 plates; Feb. 2, 1903. Also published as Contributions to Biology, xxx, Hopkins Seaside Laboratory of Leland Stanford Junior University.

A thorough revision of the family; life history of several species. New are *Blepharocera jordani* and *osten-sackeni*, and *Bibiocephala comstocki*.

The Rediscovery of *Philorus* (Blepharocera) Yosemite Osten Sacken. Psyche, Oct.-Dec., 1903, 186.

Kertész, Koloman.

Catalogus Tabanidarum Orbis Terrarum universi. A Museo Nat. Hungarico editus. Budapestini, 1900; 79 pp.

Catalogus Pipunculidarum usque ad Finem Anni 1900 Descriptarum. Természetráji Füzetek, xxv, 157-168; Apr. 15, 1901.

Catalogus Dipteriorum hucusque Descriptorum. Museum Nationale Hungaricum. Budapestini; typis G. Wesselenyi.

Vol. I. 1902. Sciaridæ to Rhyphidæ.

Vol. II. 1902. Cecidomyiidæ to Cylindrotomidæ.

Note.—The above catalogues contain references to the North American species up to the following dates respectively: Jan. 1, 1899; Jan. 1, 1901; Jan. 1, 1900, and Jan. 1, 1901.

Kincaid, Trevor.

The Psychodidæ of Washington. Entomological News, viii, 143-146; June, 1897.

Psychoda pacifica, elegans, olympia.

Psychodidæ of the Pacific Coast. Entomological News, x, 30-37, 1 plate; Feb., 1899.

Ten new species; table of genera.

Notes on American Psychodidæ. Entomological News, xii, 193-196, 1 plate; Sept., 1901.

Pericoma ocellaris var. *americana*, and *P. californica*.

Kirby, William.

Fauna Boreali-Americana; or the Zoology of the Northern Parts of British North America, by J. Richardson, assisted by W. Swainson and Will. Kirby. London; 1829-37; 4 vols. The fourth volume contains the Diptera, which are by Kirby, nine in number. The descriptions are reprinted in Canadian Entomologist, xiii, 164-169, 1881.

Kirkpatrick, J.

The Army Worm. Ohio Agricultural Report for 1861.

Exorista leucania and *osten sackenii*, parasites of the army worm; both are supposed to be synonyms of *Winthemia quadripustulata*.

Kowarz, Ferdinand.

Phytomyza chrysanthemi, in Lintner's 7th New York Report, 243; 1891.

Lamarck, J. B.

Histoire Naturelle des Animaux sans Vertèbres, etc., 1ere ed.; 7 vols. Paris, 1815-22. Also 2ieme ed. Ibid., 1835-45.

"The insects form the third volume of the first, and the fourth of the second edition. I have quoted the first edition. Some typical forms only of American insects are mentioned in this work, and no new species described."—O. S.

Latreille, P. A.

Histoire Naturelle, générale et particulière des Crustacés et des Insectes; 14 vols. Paris, 1802-04. (Diptera in vols. iii and xiv; 1802 and 1804.)

Genera Crustaceorum et Insectorum, etc.; 4 vols. Paris; 1806-7-9.

Both of these works "contain the mention or description of some typical forms from North America, but no new species." They are also important for genera.

Leach, W. E.

On the Genera and Species of Eproboscideous Insects. In the Wernerian Transaction, ii, Edinburgh, 1817.

Olfersia americana and *Ornithomyia erythrocephala* from N. A.

LeBaron, William.

Second Annual Report on the Noxious Insects of the State of Illinois, 1872.

Tachina (Exorista) phycita, which has been referred by Coquillett to *Exorista pyste* WALK.

Linné, Carl Von.

Systema Naturæ per Regna Tria Naturæ Secundum Classes, Ordines, Genera, etc., 10th edition, 1758.

Contains descriptions of sixteen species referred to America, some of which are South American.

Amœnitates Academicæ, etc., 7 vols., 1749-1769.

Contains *Asilus æstuans*, from Pennsylvania.

Lintner, J. A.

Reports of the New York State Entomologist. Articles on Diptera, chiefly biological and economic, almost always with bibliography, occur as follows: First Report (for 1882, issued 1883).

On Some Species of Anthomyidæ, 168-202, with figs.

Notice of Some Anthomyians Mining Beet Leaves. 203-211, figs.

Chortophila betarum and *Pegomyia vicina* n. sp.

Mallota posticata, 211-216, figs.

Drosophila ampelophila, 216-221, figs.

Meromyza americana, 221-227, figs.

Second Report, 1885.

The Emasculating Bot-fly, 45, 46.

Bibio albipennis, *Microdon globosus*, *Trypeta pomonella*, 110-125, figs.

Fourth Report, 1888.

Cecidomyia balsamicola n. sp., and Its Gall, 60-63, figs.

Lasiophora vitis O. S., 63-67, figs.

Chlorapisca prolifica O. S. n. sp., and Its Winter Gathering in Dwellings, 67-72, fig.

Phytomyza lateralis FALL., 73-80, figs. The name is changed in 7th

Report to *Ph. chrysanthemi* n. sp. Kowarz.

Fifth Report, 1889.

Hæmatobia serrata DESV., 220-227, fig.

Sixth Report, 1889.

Hypodermia bovis DEG., 111-116, figs. The species is now considered to be *lineata* Vill.

Drosophila sp. (The Flour-paste Fly), 116, 117.

Seventh Report, 1891.

Helophilus latifrons LOEW, 228-234, figs.

Chlorapisca prolifica O. S., 234-241, figs.

Phytomyza chrysanthemi KOWARZ n. sp., 242-246, figs.

Cecidomyia balsamicola, 307-310.

Cecidomyia sp., 308-310.

Eighth Report, 1893.

Diplosis pyrivora RILEY, 140-151, figs.

Exechia sp., a Fungus Gnat, 172.

The Cow-Horn Fly in New York, 192-197.

The Apple Maggot, 245-249.

Ninth Report, 1893.

Pollenia rudis, the Cluster Fly, 309-314, figs.

Tenth Report, 1895 (with index to all preceding).

Diplosis pyrivora RILEY, 386, 387, fig.

Notes on *Sciara*, 387-399, figs. and plate.

S. coprophila and *caldaria* n. sp.

Phora agaraci n. sp., 399, 406, plate and figs.

Eleventh Report, 1896.

The Birch-seed Midge, *Cecidomyia betulæ* Winn., 162-165, plate.

Diplosis cucumeris n. sp., 165-168, plate.

Diplosis setigera n. sp., 168-170, plate.

Anthomyia sp.? The Raspberry-Cane Maggot, 170-172. Afterward described as *Phorbia rubivora* Coq.

Twelfth Report, 1897.

Additional Notes on *Sciara*, by E. P. Felt, 223-228, plate.

Five n. sp.

Phora albidihalteris n. sp., by E. P. Felt, 228, 229.

Piophila casei LINN., 229-234, figs.

A Cecidomyid in Choke-cherries (undet.), 313, note.

Lochhead, William.

The Hessian Fly in Ontario. Bulletin 116, Ontario Agricultural College and Experiment Station, 1901; 16 pp., figs., etc.

Loew, Hermann.

Beschreibungen einiger neuen Tipularia terricola. Linnæa Entomologica, v, 385-406, 1851.

Aporosa rufescens and *virescens*, *Toxorhina fragilis*, from West Indies.

Bemerkungen über die Gattung Beris. Stett. Entomol. Zeit., VII, 1846, in four instalments.

Several North American species mentioned; no new ones.

Helophilus. Stett. Entomol. Zeit., VII, 1846, in three instalments.

Monograph of the genus; *H. glacialis* n. sp., from Labrador.

Chauna genus novum. Stett. Entomol. Zeit., VIII, 370; 1847.

Chauna variabilis, from Cuba.

Über Tetanocera stictica Fab. und ihre nächsten Verwandten. Stett. Ent. Zeit., VIII, 114-124; 1847.

T. flavescens, from Carolina.

Über Tetanocera ferruginea Meig., und die ihr verwandten Arten. Stett. Ent. Zeit., VIII, 194-202; 1847.

Tet. plumosa, from Sitka.

Bemerkungen über die Familie der Asiliden. Programme der Realschule zu Meseritz, 1850; pp. 1-22.

Dasyopogon anthracinus, from Mexico.

Ceria and Conops. In the Series, Neue Beiträge zur Kenntniss der Dipteren, which were originally printed from year to year in the Program der Realschule zu Meseritz, and afterwards by Mittler, in Berlin. Beitrag 1, 1853, 38 pp.

Ceria pictula, *arietis*, and *signifera*; *Conops* *genualis*, *bulbirostris*, and *castanoptera*.

Neue Dipteren. Neue Beitr., II, 1854, 24 pp.

Pyrgota millepuncta (syn. of *P. valida* HARRIS).

Bombylius. Neue Beitr., III, 1855, 52 pp.

Monograph of the genus in Europe; no new N. A. species, but some synonymical references.

Dipterologische Notizen. Neue amerikanische Dolichopoden. Wiener Entomol. Monatschrift, I, 37, 1857.

Lyroncenus cærulescens and *Plagioneurus univittatus*.

Excursion nach dem Neusiedler See. Neue Beitr., IV, 1856, 58 pp.

"On p. 18 several European species also occurring in N. A. are mentioned, but a part of these statements is based on erroneous data about the locality. *Helophilus pendulus*, *versicolor*, *floreus*, and *Chrysotoxum binctum* have never, as yet, been found in N. America."—O. S.

Zur Kenntniss der Europäischen Tabanus-Arten. Verhandlungen der Zool.-Bot. Gesellsch. zu Wien, 1858, 573-612.

Tabanus septentrionalis, from Labrador.

Über einige Fliegengattungen. Berlin Entomol. Zeitschr., II, 101-122, 1 plate; 1858.

Plecia longipes, from New Orleans.

Die nordamerikanische Arten der Gattungen Tetanocera and Sepedon. Wiener Entomol. Monatschr., III, 289-300, 1859.

Several species, afterward embodied in Monograph I.

Diptera americana ab Osten-Sackenio collecta, decas prima. Wiener Entomol. Monatschr., IV, 79-84, 1860.

Ten new species; all reproduced in later publications, except *Clinocera maculata* and *conjuncta*.

Diptera aliquot in insula Cuba collecta. Wiener Entomol. Monatschrift, V, 33-43, 1861.

Twenty new species.

Die nordamerikanischen Dolichopoden. Neue Beitr., VIII, 1861, 100 pp.

An extensive work, afterward embodied in Monograph II.

Die amerikanischen Ulidina. Berl. Entomol. Zeitschr., XI, 283-326, 1 plate; 1867.

Several new genera and species, which were all later embodied in Monograph III.

Monographs of the Diptera of North America, vols. I, II, III, with 11 plates. Washington, Smithsonian Miscellaneous Collections.

Vol. I, 1862.—General introduction, Trypetidae, Sciomyzidae, Ephyridae, and Cecidomyidae (the last by Osten Sacken.)

Vol. II, 1864.—Dolichopodidae.

Vol. III, 1872.—Ortaliidae and additions to Trypetidae.

Diptera americana septentrionalis indigena. In the Berliner Entomol. Zeitsch. Centuria I, 1861; II in 1862; III and IV in 1863; V in 1864; VI in 1865; VII in 1866; VIII and IX in 1869; X in 1872. Also published separately, in two volumes.

One thousand North American Diptera! Referred to in the present work as "Loew, Cent."

Diptera Common to Europe and America. Silliman's American Journal of Science and Arts, XXXVII, 317; May, 1864. This list is appended to a translation of Loew's lecture on "The Diptera of the Amber Fauna." Eighty-five species are mentioned as common to the two continents, most of them not previously reported from North America. The work is referred to herein as "Silliman's Jour."

Bemerkungen über die von Hn. Van der Wulp in der Zeitsch. d. Niederländ. Entomol. Ges. für 1867 publicirten N. A. Dipteren. Zeitsch. f. Ges. Naturwissenschaften, XXXVI, 113-120, 1870.

Remarks about the synonymy and generic position of the species in Van der Wulp's article.

Über die Arten der Gattung Sphyracephala Say. Zeitsch. f. Ges. Naturwiss., XLII, 101, 1873.

Remarks on *Sphyracephala brevicornis*.

Neue nordamerikanische Dasygogonina. Berliner Entomologische Zeitschr., XVIII, 353-377, 1874.

Fourteen new species.

Neue nordamerikanische Dipteren. Berliner Entom. Zeitsch., xviii, 378-384.
Six new species.

Beschreibungen neuer amerikanischen Dipteren. Zeitsch. f. Ges. Naturwiss.,
xlviii, 317-340, 1876.
Seventeen new species.

Revision der Blepharoceridæ. Schles. Zeitschr. f. Entomol., Neue Folge, vi.
Breslau, 1877.

The description of *Bibliocephala grandis* is reproduced here, in German.

Neue nordamerikanischen Ephydrinen. Zeitsch. f. Gesamnten Naturwiss.,
L, 192-203; March and April, 1878.

Fourteen new species.

Table of North American Species of Pachyrhina. Verh. Zool.-Bot. Ges.,
1879, 513-516.

No new species.

Note.—There are many other important papers of Loew, which should be
consulted. He rarely wrote anything unimportant. The above, however,
are all in which the North American fauna is directly referred to.

Long, Wm. H., Jr.

New Species of Ceratopogon. Biological Bulletin, iii, May and June, 1902.
C. brumalis, *stenammatidis*, *texanus*, *whecleri*.

Lugger, Otto.

Parasites of Man and the Domesticated Animals, in Second Report of the
State Entomologist of Minnesota, 1896 (published 1897).

Pages 145-182 and 209-230 are devoted to Diptera; *Simulium minutum*,
irritatum and *tribulatum* are named and figured, but not described.

Lundbeck, Will.

Entom. Unters. i Vest-Groenl. Medd. om Groenl., Heft vii, 1893.

A brief article, not seen by me; appears to be superseded by the following.

Diptera Groenlandica. I. Videnskabelige Meddelelser Naturhistoriske Foren-
ing i Kjöbenhavn, 1898, 236-314, 2 plates. II. Ibid., 1900, 281-316, figs.

A number of new species; the old faunal lists of Staeger, Holmgren,
and Schiödte are carefully reviewed, and the species elucidated.

Lynch Arribalzaga, Felix.

Dipterologia Argentina. Culicidæ. Revista del Museo de la Plata, i, 345-413,
with five plates (two colored); 1891.

Dipterologia Argentina. Syrphidæ. Anales de la Sociedad cientifica Argen-
tina, xxxii, xxxiii, and xxxiv, in instalments; 1891-1893.

Dipterologia Argentina. Mycetophilidæ. Boletín de la Academia Nacional
de Ciencias, xii, 377-436 and 471-483; 1892.

El Genero Sapromyza en America, Anales de la Sociedad cientifica Argen-
tina, xxxiv, 253-301; 1893.

Important on account of the large number of tropical species, many of
which are found also in Mexico and Central America, or in the West
Indies.

McGillivray, A. D. and Houghton, C. O.

A List of Insects taken in the Adirondacks, N. Y. Diptera in Entomological
News, xiv, 12, 13; Jan., 1903.

About ninety species, determined by Johannsen. The exact locality is
Axton, N. Y.

Macquart, Jean.

Histoire Naturelle des Diptères. 2 vols., with 24 col. pl. Paris, 1834, 1835.
Forms part of the Suites à Buffon, published by Roret.

The species are mostly European; there are a few scattered throughout from North America.

Diptères Nouveaux ou peu Connus. Two volumes in five parts, and five supplements in six parts. Mémoires de la Société des Sciences et des Arts de Lille.

Vol.	I,	part 1	1838	pp.	9-225	25 plates.
	I,	" 2	1838		121-323	14 "
	II,	" 1	1841		282-414	21 "
	II,	" 2	1842		63-200	22 "
	II,	" 3	1843		162-460	36 "
Suppl.	I,		1845		133-364	20 "
	II,		1847		21-120	6 "
	III,		1847		161-240	7 "
	IV,	part 1	1850		309-479	14 "
	IV,	" 2	1851		134-294	14 "
	V,		1855		25-156	7 "

This set contains an immense amount of material from North America, especially the larger flies of the southern regions. I give the dates of actual publication according to Hagen, although I observe that they do not agree exactly with Osten Sacken, nor with those penciled on my own set. The nominal date of publication was one year earlier, except with the first, second and eighth numbers. The work was also published separately, with different pagination, and this was used by Osten Sacken in his Catalogue; it is therefore continued by me. The parts without exception are indexed, so that any difficulty about the pages will readily be overcome.

Notice sur une nouveau Genre de la Famille des Pupipares, etc. Annales Soc. ent. de France, 1852, 331-333, pl. iv, f. 4.

Megistopoda pilatei, from Mexico and Cuba.

Notice sur une nouvelle Espèce d'*Aricie*. Annales Soc. ent. de France, 1853, 675, pl. xx, f. 2.

Aricia pici, from San Domingo.

Marlatt, C. L.

Report of a Trip to Investigate Buffalo Gnats. Insect Life, II, 7-11; July, 1889.

Notes on breeding habits of *Simulium meridionale*.

The Xanthium Trypeta. Insect Life, III, 312, 313, figs.; April, 1891.

Life history of *Euaresia aequalis*.

The Ox Warble. Circular No. 25, sec. ser., Div. of Entomology; July, 1897. 10 pp., figs.

Hypoderma lineata VILL.

The Principal Insect Enemies of Growing Wheat. Farmers' Bulletin No. 132, Division of Entomology, Dept. of Agriculture. 40 pp., 1901, figs.

Life history of *Mayetiola destructor*, *Contarinia tritici*, and *Meromyza americana*.

Marten, John.

New Tabanidæ. Canadian Entomologist, xv, 110-112; June, 1883.

Tabanus allynii, *tetricus*, *frenchii*, *susurrus*.

Description of *Asphondylia helianthi-globulus*. *Psyche*, Sept.-Oct., 1888, 102.

Description of a New Species of Gall-making Diptera. *Bulletin of the Ohio Experiment Station, Technical series*, 1, No. 3, 155, 156, 1893.

Lasioptera muhlenbergia.

Matas, Dr. R.

A Man-Infesting Bot. New Orleans, 1887; privately printed. Reviewed in *Ins. Life*, 1, 76-80, figs.

An undetermined species, supposed to be a *Dermatobia*.

Meade, R. H.

List of North American Anthomyidæ. *Canadian Entomologist*, XIII, 43-51, 1881.

No new species; several European recognized, with more or less doubt.

List of North American Sarcophagidæ. *Canadian Entomologist*, XIII, 146-150, 1881.

Notes on a number of species; none new.

Meigen, J. W.

Systematische Beschreibung der bekannten europäischen zweiflügeligen Insekten. 7 vols., Achen and Hamm, 1818-1838.

The work contains only European species, but many are common to both continents.

Melander, Axel L.

A Decade of Dolichopodidæ. *Canadian Entomologist*, XXXII, 134-144, figs.; May, 1900.

Ten new species.

Gynandromorphism in a New Species of *Hilara*. *Psyche*, IX, 213-215, figs.; June, 1901.

Hilara wheeleri.

Notes on the Acroceridæ. *Entomological News*, XIII, 178-181, fig.; June, 1902.

Notes on twelve species; *Opsebius agalena* n. sp., but according to Adams this is a synonym of *Op. pterodontinus* O. S.

Monograph of the North American Empididæ. Part I. *Transactions of the American Entomological Society*, XXVIII, 195-367, five plates; July-Oct., 1902.

Many new species and several genera. Includes all the family except the genus *Rhamphomyia* "in its wide sense."

An Interesting New *Chrysotus*. *Entomological News*, XIV, 72, fig.; March, 1903.

C. philtrum.

A Review of the North American Species of *Nemotelus*. *Psyche*, 1903, Oct.-Dec., pp. 171-183, 1 plate.

arator, *bruesii*, *trinotatus*, *wheeleri* and *bellulus*, new.

See also Wheeler and Melander.

Melander, A. L. and Brues, C. T.

New Species of *Hygroceleuthus* and *Dolichopus*. *Biological Bulletin*, I, 123-148, many figures; 1900.

Fifteen new species; several others redescribed.

Guests and Parasites of the Burrowing Bee *Halictus*. *Biological Bulletin*, V, 1-27, figs.; June, 1903.

Ceratopogon hollensis; *Phora cata, rostrata* and *halictorum*; *Stethopathus occidentalis*.

Mik, Josef.

Ueber die dipterologischen Referate in den Jahrgängen 1882 bis inclusive 1890 der Wiener Entomologischen Zeitung. Wien. Entomol. Zeitung, ix, 281-308; Dec., 1890.

A résumé of the more important dipterological matters commented upon, corrected, etc., in the first nine years of the journal.

Ein Beitrag zur "Bibliotheca Entomologica." Wiener Entomologische Zeitung, x, 65-96; April, 1891.

A digest of the author's thirty years of published work in entomology, mainly in the Diptera.

Hypocharassus gladiator, eine neue Dolichopoden-Art aus Nordamerika. Vehr. Zool.-Bot. Ges. Wien, 1878, 617-632, 1 pl.

Ueber Tachiniden, deren drittes Fühlerglied gespalten ist. Wiener Entomologische Zeitung, xiv, 101-103, 1895.

Remarks on *Dichocera* WILL., and other genera.

Bemerkungen zu den Dipteren-Gattungen Pelecocera Meig. and Rhopalomera Wd. Wiener Entomologische Zeitung, xiv, 133-135, 1895.

Chamasyrphus n. g.; *Willistoniella* for *Rhopalomyia* WILL.

Note.—Mik published an enormous number of small items on Diptera, among which were occasional remarks on North American genera and species. These will be found in their appropriate places in the body of the Catalogue, but need not be cited in detail here. The two articles first given above will guide to many of the earlier of these notes, comments, corrections, etc.

Morris, Miss.

Cecidomyia culmicola n. sp. Proc. Acad. Nat. Sciences of Phil., iv, 194, 1849.

Notes; not described.

Motter, Murray G.

A Contribution to the Study of the Fauna of the Grave. Journal of the New York Entomological Society, vi, 201-231, 1898.

A number of species of Diptera are mentioned.

Morgan, H. A.

The Texas Screw-Worm. Bull. 2, La. Ex. Sta., 29-39, figs.; 1890.

Life history of *Chrysomya macellaria*.

Observations upon the Mosquito Conchyliastes musicus Say. Bulletin 37, n. ser., Division of Entomology, 113-114, fig.

Murtfeldt, Mary E.

Homivoracious Habits of the Screw-Worm in St. Louis. Insect Life, iv, 200, 201; Dec., 1891.

On the habits of *Chrysomya macellaria* FABR.

The Cheese or Meat Skipper. Insect Life, vi, 170-175; Dec., 1893. Also in 24th Ann. Rept. Ontario Ent. Soc., 98.

Life history of *Piophilila casei*.

Needham, Jas. G.

A Remarkable Occurrence of the Fly Bibio fraternus Loew. American Naturalist, xxxvi, 181; March. 1902; with figs. of larva and pupa.

Food of Brook Trout in Bone Pond. Bulletin 68, N. Y. State Museum, 204-217; Aug., 1903.

Some dipterous larvæ mentioned.

Some New Life Histories of Diptera. Bull. 68, N. Y. State Museum, 279-287, plates IX and X; Aug., 1903.

Life histories of *Tipula flavicans* and *Epiphragma fascipennis*; two undetermined larvæ mentioned.

Needham, Jas. G. and Betten, Cornelius.

Aquatic Insects in the Adirondacks. Bulletin 47, N. Y. State Museum; Sept., 1901. Pp. 383-612, 36 plates.

Life histories of *Tipula abdominalis*, *Stratiomyia badia*, *Sepedon fuscipennis*, *Tetanocera pictipes*, and *Raderioides juncta*; the last and *Zabrachia polita* described by Coquillett.

Newman, Edward.

Entomological Notes. Entomol. Mag., v, 373, 1838.

Dimeraspis podagra n. sp. (syn. of *Microdon globosus*).

Niles, E. P.

Animal Parasites. Bulletin 110, Virginia Experiment Station; March, 1900. Pp. 27-37.

A popular account of bots, with figures of several species.

Olivier, G. A.

"A portion of the entomological volumes of the Encyclopédie Méthodique is by him. In vol. VIII (1811) under the titles *Odontomyia*, *Ocyptera*, *Ornithomyia*, I found descriptions of several new North American species which had been overlooked by previous authors."—O. S.

Osborn, Herbert.

Insects Affecting Domestic Animals. Bulletin No. 5, new series, Division of Entomology, Department of Agriculture.

Contains notes on several species of Diptera.

The Hessian Fly in the United States. Bulletin No. 16, new series, Division of Entomology; 1898. Pp. 58, 8 figs., 3 plates.

Full account of habits; extensive bibliography.

An Insect occurring in Tanks and Reservoirs. In Bull. 32, Iowa Exp. Station, pp. 405-407, figs. (*Chironomus* sp.)

Osten Sacken, C. R.

Catalogue of the Described Diptera of North America. Washington, 1858. Smithsonian Miscellaneous Collections, vol. III.

Appendix to the Smithsonian Catalogue of the Described Diptera of North America. October, 1859, 3 pages.

New Genera and Species of North American Tipulidæ with short Palpi, with an Attempt at a New Classification of the Tribe. Proc. Acad. Nat. Sciences of Philadelphia, 1859, 197-256.

New genera and species, reproduced in a later monograph.

Appendix to the Paper entitled "New Genera and Species," etc. Proc. Acad. Nat. Sciences of Philadelphia, 1860, p. 16.

Description of Nine New Limnobiaceæ. Proc. Academy of Natural Sciences of Philadelphia, 1861, 287-292.

On the North American Cecidomyiæ. Monographs of North American Diptera, Smithsonian Institution. Vol. I, 173-205, with a plate and figs. Washington; April, 1862.

Four new species.

Characters of the Larvæ of Mycetophilidæ. Proceedings of the Entomological Society of Philadelphia, I, 151-172, 1 plate; 1862.

Sciara toxoneura.

Lasioptera reared from the Gall of a Goldenrod. Proceedings Entomological Society of Philadelphia, I, 368-370, 1863; also in vol. II, 77.

Lasioptera solidaginis.

Description of several New North American Ctenophoræ. Proceedings of the Entomological Society of Philadelphia, III, 45-49, 1864.

Five new species.

Descriptions of some New Genera and Species of North American Limnobia. Proceedings of the Entomological Society of Philadelphia, IV, 224-242, 1865.

Six new species.

Two New North American Cecidomyiæ. Proceedings of the Entomological Society of Philadelphia, VI, 219, 220, 1866.

Cecidomyia gleditchiæ and *salicifoliæ*.

Description of a New Species of Culicidæ. Transactions of the American Entomological Society, II, 47, 48, 1868.

Aedes sapphirinus.

The North American Tipulidæ. Part I; brevipalpi, Cyndrotomina and Ptychopterina. Monographs of North American Diptera, No. IV, in Smithsonian Miscellaneous Collections, vol. VIII; Washington, Jan., 1869. Pp. xi and 345, with four plates and several wood-cuts.

Many new species. Additions and corrections to this volume will be found at the end of Monograph III, published after No. IV.

Biological Notes on Diptera. Article First. Galls on Solidago. Transactions of the American Entomological Society, II, 299-303, 1869.

Asphondylia monacha and *Cecidomyia anthophila*.

Biological Notes on Diptera. Article Second. (1) A New American Asphondylia. (2) On some Undescribed Galls of Cecidomyia. Transactions of the American Entomological Society, III, 51-54, 1870-71.

Asphondylia rudbeckiæ-conspicua; four new galls described and named.

Biological Notes on Diptera. Article Third. Transactions of the American Entomological Society, III, 345-347, 1870-71.

Diplosis resinicola; notes on several species.

A List of the Leptidæ, Mydæ and Dasypogonina of North America. Bulletin of the Buffalo Society of Natural Science, 1874, 169-187.

Mydas audax, *carbonifer* and *chrysostomus* n. sp.; the descriptions are reproduced in the Catalogue, 1878. Additions and corrections are given in the Bulletin, Nov., 1875, p. 71.

Prodrome of a Monograph of North American Tabanidæ. Memoirs of the Boston Society of Natural History, II, 365-397, 421-479, and 555-566, published in 1875-78.

Many new species.

Report on the Diptera Collected by Lieut. W. L. Carpenter in Colorado in the summer of 1873. Hayden's U. S. Geological and Geographical Survey of Colorado, 1873, 561-566. Washington, 1874.

Bibiocephala grandis n. g. and sp.

Three New Galls of Cecidomyiæ. Canadian Entomologist, Nov., 1875.

Cecidomyia verrucicola, urnicola; Asphondylia recondita.

Note on Some Diptera from the Island Guadelupe, Pacific Ocean, Collected by Mr. Palmer. Proceedings of the Boston Society of Natural History, xviii, 133, 134; Oct., 1875.

No new species; *Musca domestica* is the only one specifically determined.

Note.—There is also an island *Guadaloupe*, in the *West Indies*, and a number of species of Diptera are reported from it.

On the North American Species of the Genus *Syrphus* (in the narrowest sense). Proceedings of the Boston Society of Natural History, xviii, 135-153; Oct., 1875.

Syrphus torvus, rectus, amalopsis, contumax.

A List of North American Syrphidæ. Bulletin of the Buffalo Society of Natural Science, November, 1875, 38-71.

Nine new species described in the appendix. Additions and corrections are given in the Bulletin, May, 1876, p. 130. All the descriptions and notes are reproduced in the Catalogue, 1878.

Report on the Collection of Diptera made in portions of Colorado and Arizona during the year 1873. In Lieut. Geo. M. Wheeler's Report on the Explorations and Surveys West of the One Hundredth Meridian, vol. v, Zoology, 804-807. Washington; 1875.

Lasia klettii n. sp.

Blepharoptera defessa n. sp. In an article on "A New Cave-Fauna in Utah," by A. S. Packard. Bulletin of the U. S. Geological and Geographical Survey of the Territories, iii, No. 1, p. 168; 1877.

Report on the Diptera Collected by Dr. E. Bessels during the Arctic expedition of the *Polaris* in 1872. Proceedings of the Boston Society of Natural History, Dec., 1876.

Tipula besselsi n. sp.

Western Diptera. Descriptions of New Genera and Species of Diptera from the Region West of the Mississippi, and especially from California. Bulletin of the U. S. Geological and Geographical Survey of the Territories, iii, No. 2; April, 1877; pp. 189-354.

One hundred and thirty-six new species and several new genera.

Catalogue of the Described Diptera of North America (second edition). Smithsonian Miscellaneous Collections. Pp. xlvii and 276. Washington, 1878.

Two new genera and five new species are described in the notes, and a number of species redescribed. The work contains much more than an ordinary catalogue of so many species. It is in fact a mine of information on the order and its classification.

Bemerkungen über Blepharoceriden; ein Nachtrag zur "Revision" dieser Familie von Professor Dr. Loew. Deutsche Ent. Zeitsch., xxii, 405-416, 1878.

A review of the structural characters of the family; no new species.

An Essay of Comparative Chaetotaxy, or the Arrangement of Characteristic Bristles of Diptera. Originally printed in Mittheil. d. Münchener Entomol. Vereins, v, 121-138, 1881; revised and republished in Trans. Entom. Society of London, 1884, pt. iv, pp. 497-517.

An attempt to locate and name the principal characteristic bristles (macrochaetae) of Diptera, as a means of classification; very important. No new species.

On Professor Brauer's Paper, "Versuch einer Charakteristik der Gattungen der Notacanthien." Berl. Entom. Zeitsch., xxvi, 363-380, 1882.

Many notes on genera; no new species.

On the Genus *Apiocera*. Berl. Entom. Zeitsch., xxvii, 287-294, 1883; correction, xxx, 139, 1886; Second Notice on *Apiocerina*, xxxvi, 311-316, 1891.

No new species.

Synonymica Concerning Exotic Dipterology. II. Berl. Entom. Zeitsch., xxvii, 295-298, 1883.

Dialysis WALKER, and other genera mentioned.

A Singular North American Fly. Berl. Entom. Zeitsch., xxvii, 299-300, 1883.

Opsebius pterodontinus n. sp.

Studies on Tipulidae. Part I. Review of the Published Genera of the Tipulidae longipalpi. Berl. Entom. Zeitsch., xxx, 153-188, 1886.

Brachypremna n. gen., from Texas.

Studies on Tipulidae. Part II. Review of the Published Genera of the Tipulidae brevipalpi. Berl. Entom. Zeitsch., xxxi, 163-242, 1887.

Rhamphidia albitarsis n. sp., from Porto Rico.

Biologia Centrali-Americana. Vol. I. Cecidomyiidae-Empididae. 216 pp., 3 col. plates. 128 pp. in 1886, the remainder in 1887.

Many new species, and a few genera.

On Mr. Portschesky's publications on the larvæ of Muscidae, including a detailed abstract of his last paper, "Comparative biology of the necrophagous and coprophagous larvæ." Berl. Entom. Zeitsch., xxxi, 17-28, 1887.

Although Portschesky's work does not come within our faunal limits, relating to southern Russia, the subject is very interesting, and I cannot refrain from mentioning the paper. It forms a useful complement to Howard's paper on Diptera of excrement.

Some North American Tachinae. Canadian Entomologist, xix, 161-166; Sept., 1887.

Five new species.

Chloropisca prolifica n. sp. Lintner's 4th New York Report, 60, 61, 1888.

See *Chlorops variceps*.

Suggestions Toward a Better Grouping of Certain Families of the Order Diptera. Entomologist's Monthly Mag., second series, ii, 35-39, 1891.

Synopsis of the Described Genera and Species of the Blepharoceridae. Berl. Entom. Zeitsch., xxxvi, 407-411, 1891.

Analytical tables of the genera and species, with references; no new species.

On the Characters of the Three Divisions of Diptera: *Nemocera vera*, *Nemocera anomala*, and *Eremochaeta*. Berl. Entom. Zeitsch., xxxvii, 417-466, 1892.

Explanatory Notice of my Views on the Sub-orders of Diptera. Entomologist's Monthly Magazine, second series, IV, 149, 150, 1893.

On the So-called Bugonia of the Ancients, and Its Relation to *Eristalis tenax*. Bull. Soc. Ent. Italiani, xxv, 186-217; 1893.

On the Oxen-born Bees of the Ancients (Bugonia), and their Relation to *Eristalis tenax*. Heidelberg, J. Hoerning, 1894, pp. xiv and 80.

This is a reprint and enlargement of the preceding. There is an additional article, pub. by J. Hoerning, 1895, 23 pp.

On the Atavic Index-Characters. Berl. Entom. Zeitsch., xxxix, 69-76, 1894.
Western Pediciæ, Bittacomorphæ and Trichoceræ. Psyche, vii, 229-231; April, 1895.

Notes on several species from the Western States; none new.

Eristalis tenax in Chinese and Japanese Literature. Berl. Ent. Zeitsch., xl, 142-147, 1895.

Contributions to the Study of the Liponeuridæ. Berl. Ent. Zeitsch., xl, 148-169, 1895.

Blepharoceridæ; a study of generic characters, etc. A supplement to this paper is published in vol. xl, 351-355, 1895.

Preliminary Notice of a Subdivision of the Suborder Orthorhapha Brachycera on Chætotactic Principles. Berl. Entom. Zeitsch., xli, 365-373, 1896.

I have adopted for my catalogue almost the arrangement of this paper.

Identification of Two Genera of Nemestrinidæ published by Bigot. Berl. Entom. Zeitsch., xlii, 145-149, 1897.

Dicrotrypana Big., and *Parasymmictus* Big.

Amalopsis Haliday (O. S.) versus *Tricyphona* Bergroth (not Zett.). Berl. Entom. Zeitsch., xlii, 150-154; 1897.

On the Synonymy of *Anopheles maculipennis* Meigen. Entomol. Monthly Mag., sec. ser., xi, 281, 282; Dec., 1900.

Maculipennis vindicated as against *claviger* Fab.

On the New Nomenclature of the Cecidomyidæ. Entomol. Monthly Mag., sec. ser., xii, 40-43, 1901.

Opposing the abandonment of the old genus *Cecidomyia*, as finally developed by Meigen and Latreille. For reasons explained at the beginning of the family, I have adopted the "new nomenclature."

The Position of *Phora* in the System of Diptera. Entomol. Monthly Mag., xiii, 204, 205, 1902.

On a Distinctive Character of the Imagos of the Suborders of Diptera. Ent. Monthly Mag., xiii, 228, 1902.

Record of My Life Work in Entomology. Parts I and II. Cambridge, Mass.; Oct., 1903, 204 pp. Part III, Heidelberg, 1904, pp. 205-240, with portrait.

Baron Osten Sacken's autobiographical volume contains so much information about the earlier work on North American Diptera, and the development of dipterological science in general, that every student of the order will find it extremely interesting and valuable. His rare and noble devotion to science throughout a long career should be an inspiring example.

Packard, Alpheus S.

On Insects Inhabiting Salt Water. Proceedings of the Essex Institute, vi, 41; March, 1869.

Ephydra halophila and *Chironomus helophilus* n. spp.

On Insects Inhabiting Salt Water. No. 2. American Journal of Science and Arts, 3d series, 1, 100, 1872.

Ephydra gracilis and *californica*, described from larvæ; adults unknown.

Report upon the Invertebrate Animals of Vineyard Sound, etc. Washington, 1874.

Several larvæ of Diptera; *Chironomus halophilus* n. sp.

On the Transformations of the common House-fly. Boston Society of Natural History, xvi, 136-150, 1 plate; 1874.

Insects affecting the Cranberry, with Remarks on other Injurious Insects. Report U. S. Geol. Survey for 1876 (pub. 1878), 527.

Diplosis pini-rigida n. sp., on *Pinus rigida*.

The Hessian Fly. Bull. No. 4, U. S. Entomological Commission, 1880. 43 pp., figs.

Bot-Fly Larvæ in a Turtle's Neck. American Naturalist, xvi, 598, fig.; July, 1882. Not determined; perhaps not an Oestrid.

Larvæ of a Fly in a Hot Spring in Colorado. American Naturalist, xvi, 599, 600; July, 1882.

Stratiomyia sp.; larvæ in water at 157 degrees Fahrenheit.

The Hessian Fly. In the Third Report of the U. S. Entomological Commission, 1883, 198-248, figs., etc.

Forest Insects. Being the Fifth Report of the United State Entomological Commission. Washington, 1890, 955 pp., with many plates and figures.

No new species of Diptera; life history of many species briefly given.

The Entomological Writings of Alpheus S. Packard. A bibliography by Samuel Henshaw. Division of Entomology, 1887, 49 pp.

Palisot de Beauvois, A. M. F. J.

Insectes recueillis en Afrique et en Amérique, etc. Paris, 1805-21; with plates.

Several Tabani, one Chrysops, and one Syrphid are described and figured.

Pergande, Theodore.

The Ant-Decapitating Fly. Proceedings of the Entomological Society of Washington, iv, 498; July 2, 1901.

Life history of the species; described by Coquillett in same article as *Apocephalus pergandei* n. gen. et sp.

Pettit, Rufus H.

Bulletin 175, Michigan Exper. Station; July, 1899; pp. 356-361, notes on Hessian Fly and on the Beet-Leaf Miner, *Pegomyia vicina*.

Bulletin 186, Michigan Exper. Station, and also Annual Report of same for 1901, contains a list of Diptera collected in Northern Michigan, and an article with good figure on the Potato-Beetle Tachinid, *Phorocera doryphora*.

A Leaf-mining Chironomus sp. in Water-lilies. Mich. Acad. Science, 1900, p. 110, with plate. Habits of an undetermined species. Compare *Cricotopus sylvestris*.

Perty, Maximilian.

Delectus Animalium articulorum quae in Itinere per Brasiliam Annis 1817-1820, etc., collegerunt Dr. Spix et Dr. Martius. Monachii, 1830-34. 4to, with 40 plates.

Several species described here occur also in Cuba and Mexico.

Poe, Felipe.

Memorias sobre la Historia Natural de la Isla de Cuba. Tomo I. Habana, 1851-54.

Oecacta furens n. gen. et sp.

Reiche, L.

Description du cinquième espèce nouvelles d'Insectes, provenant de l'Expédition aux Mers arctiques. Annales Soc. Ent. France, Bulletin, p. IX, 1857.

Anthomyia impudica (is a *Cordylura*—O. S.).

Riley, Charles V.

First Report of the State Entomologist of Missouri. Jefferson City, 1869.

Life history and description of *Anthomyia zeas* n. sp. (syn. of *Phorbia fusciceps*), *Lydella doryphoræ* n. sp. (see *Phorocera*), *Pipiza radicum* n. sp. (probably syn. of *P. femoralis*); also *Meromyza americana*, *Oestrus ovis*, and *Trupanca apivora* FITCH (*Promachus fitchii* WILL.).

The Cecropia Moth. American Entomologist, II, 97-102; Feb., 1870.

Exorista cecropiæ n. sp. (syn. of *Winthemia quadripustulata*).

Second Missouri Report, 1870.

Life history and description of *Asilus missouriensis* n. sp. (*Proctacanthus milberti*), *Exorista flavicauda* n. sp. (*Belvosia unifasciata*), and of *Tabanus atratus*.

Fourth Missouri Report, 1872.

Tachina anonyma n. sp. (*Frontina frenchii*), and *T. phycitæ* LEBARON (*Exorista pyste*).

Fifth Missouri Report, 1873.

Descriptions of several galls of Cecidomyidæ on grape.

Descriptions and Natural History of two Insects which brave the Dangers of *Sarracenia variolaris*. Trans. Acad. Nat. Sci. St. Louis, III, 235-240; 1875.

Sarcophaga sarraceniæ n. sp.

The Clover-Seed Midge. Report of the Commissioner of Agriculture for 1878 (pub. Oct., 1879), 248-250.

Cecidomyia leguminicola LINTNER, life history.

Parasites of the Cotton Worm. Canad. Entomol., XI, 161-162, 1879.

Tachina aleticæ n. sp. (see *Frontina aleticæ*).

Natural Enemies of the Locust. Second Report of the U. S. Entomological Commission, 1880 (pub. 1881), 259-270.

Life history of *Systæchus oreas* and *Triodites mus*, reared from locust eggs; some other Diptera mentioned.

Dipterous Enemies of Phylloxera vastatrix. Canadian Entomologist, XV, 39; Feb., 1883.

Mentions *Leucopis phylloxeræ* MS., which was never described.

Occurrence of a Stratiomyia larvæ in Sea-water. American Naturalist, XVII, 1287; Dec., 1883.

Not determined.

Report of the Entomologist. In the Report of the Commissioner of Agriculture for 1884 (pub. Jan. 31, 1885).

Contains articles on *Oscinis brassicæ* n. sp. (*Agromyza trifolii*), *Anthomyia* (*Phorbia*) *brassicæ*, and *Simulium* sp.

Natural Enemies of the Cotton-Worm. Fourth Report U. S. Entom. Com., 87-119; Feb. 3, 1886.

Phora aleticæ n. sp. (*nigriceps*).

The Pear Midge, *Diplosis pyrivora* n. sp. Report Comr. of Agriculture for 1885 (pub. 1886), 283-288. Life history, etc.

The Southern Buffalo-Gnat. Report Comr. of Agriculture for 1886 (pub. 1887), 492-517.

Simulium meridionale and *pecuarum* n. sp. (the latter a syn. of *invenustum*), with life histories.

Beschreibung einer den Birnen schädlichen Gall-Mücke (*Diplosis nigra* Meigen?). Wiener Entomol. Zeitung, vi, 201-206, figs.; Sept., 1887.

Diplosis pyrivora n. sp. proposed if distinct; it had already been so named by Riley more than a year before.

The Morelos Orange Fruit-Worm. Insect Life, I, 45-47, fig.; Aug., 1888.

Life history of *Trypeta* (*Anastrepha*) *ludens* LOEW.

The Ox Bot in the United States. Insect Life, iv, 302-317, figs.; June, 1892.

Hypoderma lineata VILL., life history.

Bibliography of the more important Contributions to American Economic Entomology of Charles Valentine Riley. By Samuel Henshaw. Division of Entomology, 1889, 379 pp.

Riley, Charles V. and Howard, Leland O.

The Corn-Feeding Syrphus Fly (*Mesogramma polita* Say). Insect Life, I, 5-8, figs.; July, 1888.

Life history of *Mesogramma polita* SAY.

On the Emasculating Bot-Fly. Insect Life, I, 214-216, fig.; Jan., 1889.

Cuterebra emasculator FITCH.

Hermetia mucens Infesting Bee-hives. Insect Life, I, 353; May, 1889.

The Horn Fly. Insect Life, II, 93-103, figs.; Oct., 1889.

Life history of *Hamatobia serrata* DESV.

The Bot-Fly of the Ox. Insect Life, II, 156-159, figs.; Nov., 1889.

The Ox Warble. Insect Life, II, 172-177, figs.; Dec., 1889.

Both on *Hypoderma lineata* VILL.

Anthrax Parasitic on Cut-Worms. Insect Life, II, 353, 354; May and June, 1890.

No new species.

A Peach Pest in Bermuda (*Ceratitis capitata* Wied.). Insect Life, III, 5-8, figs.; Aug., 1890. Additional notes, pp. 80, 81.

Bermuda is not within the range of this catalogue, but the species may easily be introduced into our fauna.

Robertson, Chas.

Some New Diptera. Canadian Entomologist, xxxiii, 284-286; Oct., 1901.

Eight new species.

Roeder, Victor von.

Dipterologische Notizen. Berliner Entomol. Zeitsch., xxv, 210-216, 1881.

Eurycephala myopæformis n. g. and sp., from Cal.

Dipteren von der Insel Porto Rico, etc. Stettiner Entomol. Zeit., 1885, 337-349.

Eleven n. sp.; about eighty described species listed, many of which are redescribed.

Ueber die nordamerikanischen Lomatiina, etc. Wiener Entomol. Zeitung, v, 263; Oct., 1886.

Notes on several species of the group from N. A.; none new.

Ueber die Gattungen *Doryclus* Jæn. und *Megapoda* Macq. Berliner Entomol. Zeitschr., xxxi, 76-78, 1887.

Asyndulum montanum n. sp. Wiener Entomol. Zeitung, vi, 116; May, 1887.
From New Hampshire.

Ueber *Myopa clausa* Loew. Wiener Entomol. Zeitung, viii, 5, 1889.

Zwei neue nordamericanische Dipteren. Wiener Entomol. Zeitung, ix, 230; Oct., 1890.

Bittacomorpha sackenii and *Agathon elegantulus*, from Nevada; the latter a new genus, regarded by Kellogg as a synonym of *Bibiocephala*.

Ueber die Dipteren-Gattung *Stylogaster* Macq. Wiener Entomol. Zeitung, xi, 286; Nov., 1892.

Ueber *Trypeta amabilis* Loew. Wiener Entomol. Zeitung, xiii, 97; March, 1894.

Redesc. and figured; see *Hexacheta amabilis*.

Ueber *Mydas fulvipes* Walsh. Wiener Entomol. Zeitung, xiii, 169, 170, 1894.

Rondani, Camillo.

Diptera exotica, revisa et notata, novis nonnullis descriptis. Archivio Canestrini, iii, 1863.

Scatina estotilandica n. sp. from Labrador.

Osservazioni sopra alquante specie di esapodi ditteri del Museo Torinese. Nuovi Annali di Bologna, ser. 3, ii, 165-197, 1850.

Tabanus cheliapterus n. sp., from Carolina.

Hippoboscita exotica non vel minus cognita. Annali del Museo Civico di Storia Naturale di Genova, xii, 150-169, 1878.

Six new species of Hippoboscidae from Mexico.

Ruebsaamen, Ewald H.

Sciara striata n. sp. Berliner Entomol. Zeitschr., 1894, 37.
From Mexico.

Zoolog. Ergebnisse der . . . Grönland expedition. Grönlandische Mycetophiliden, Sciariden, Cecidomyiden, Psylliden, etc. In Bibliotheca Zoologica, xx, 103-119, 2 plates; 1898.

Six new species of *Sciara* from Greenland.

Saint Fargeau et Serville.

Encyclopédie Méthodique, vol. x. Paris, 1825.

A number of North American Diptera are mentioned; none new.

Say, Thomas.

Diopsis brevicornis n. sp. Journal of the Academy of Natural Sciences of Philadelphia, i, 23, 1817.

Some Account of the Insect known as the Hessian Fly, etc. Jour. Acad. Nat. Sci. Phil., i, 45-48 and 63, 64; 1817. *Cecidomyia destructor* first described.

Description of Dipterous Insects of the United States. Journal of the Academy of Natural Sciences in Philadelphia, iii, 9-54 and 73-104; 1823.

Description of North American Dipterous Insects. Journal Academy of Natural Sciences in Philadelphia, vi, 149-178 and 183-188; 1829-30.

Keating's Narrative of an Expedition to the Source of St. Peter's River, etc., under the Command of S. H. Long. 2 vols.; Philadelphia, 1824. Insects described by Say in the Appendix to the second volume, Diptera, pp. 357-378. Cited as "Long's Exped."

Description of new species of North American Insects found in Louisiana by Jos. Barabino. New Harmony, Ind., March, 1831 (not in the Complete Works; see Scudder, in Psyche, Jan., 1899, where the description of the single new species is quoted).

New Species of North American Insects found by Jos. Barabino in Louisiana. New Harmony, Ind., 1832.

American Entomology. 3 vols., with plates. Philadelphia, 1824-25-28.

The Complete Writings of Thomas Say on the Entomology of North America, with a Memoir of the Author by George Ord. Edited by John L. Leconte. New York; 1859; 2 vols., 8 vo; 1200 pp., with 36 plates.

There is also a French translation of Say's works, in vol. v of Annales Soc. Ent. de France, 1837.

There are about 250 new species of North American Diptera in Say's writings.

Say sent many of his species of Diptera to Wiedemann, who redescribed them in his Aussereropäische Zweifl. Ins. In many cases the latter description is more characteristic than Say's.

Shimer, Henry.

Description of a New Species of Cecidomyia. Transactions of the American Entomological Society, I, 281, 1868.

Cecidomyia aceris, n. sp.

A Summer's Study of Hickory-galls, with Descriptions of Supposed New Insects Bred from them. Transactions of the American Entomological Society, II, 386, 1869.

Cecidomyia cossæ, n. sp.

Additional Notes on the Striped Squash-Beetle (*Diabrotica vittata*). American Naturalist, v, 217, 1871.

Melanosphora diabroticæ, n. sp., here placed in *Celatoria*.

Schiner, J. R.

Fauna Austriaca. Diptera. Vienna, 2 vols., 1862-64.

Incomparably the best encyclopædic work on Diptera that was ever published. While it is intended to include only Austrian forms, many of the species occur in North America, and most of the genera.

Neue oder wenig bekannte Asiliden des kaiserl. Hofcabinet in Wien. Verhandlungen der zoologischen-botanischen Gesellschaft zu Wien, xvii, 355-412, 1867.

Five new N. A. species.

Reise der Oesterr. Fregatte Novara um die Erde in den Jahren 1857-59. Zoologischer Theil. Diptera. Wien, 1868, 1 vol. 4to, with 4 plates.

Many South American species which also occur in North America are described; also some new genera occurring in North America.

Schnabl, Johann.

Limnospila nov. gen. Anthomyidarum. Wiener Ent. Zeitung, xxi, III, 1902.

Type, *Canosia albifrons*, which occurs in North America.

Schwarz, E. A.

The Insect Fauna of the Great Salt Lake, Utah. Canadian Entomologist, xxiii, 235-241, 1891.

Extended notes on the larva of *Ephydra gracilis* PACK.

The Hippelates Plague in Florida. Insect Life, vii, 374-379, figs.; July, 1895.
Notes on *H. flavipes* and *plebeius*, annoying people in Florida.

Scudder, Samuel H.

Description of *Tachina theclarum*, in an article by Osten Sacken, Canadian Entomologist, xix, 166; Sept., 1887.

The species is referred by Coquillett to *Exorista confinis* FALL.

An Unknown Tract on American Insects by Thomas Say. Psyche, Jan., 1899, 306-308.

Contains reprint of *Trypeta trifasciata* SAY.

Note.—Mr. Scudder's work on fossil Diptera is not listed, not being within the scope of the present catalogue.

Schiödte, J. G.

Naturhistoriske Tillæg til Rink: "Grönland geographisk og statistisk beskrevet," 1857; a German translation of the "Tillæg" or appendix was printed in Berliner Entomolog. Zeitschr., 1859, 134-157.

No new species; some synonymy, and a list of described Diptera from Greenland.

Sirrine, F. A.

The Spinach-leaf Maggot or Miner. Bull. 99, N. Y. Experiment Station; Jan., 1896; pp. 21-31, figs. Also in Annual Report N. Y. Exp. Sta. for 1895 (pub. 1896), 625-633, 1 plate.

Life history of *Pegomyia vicina* LINT.

A Little-known Asparagus Pest (*Agromyza simplex* Lw.). Bull. 189, N. Y. Exp. Sta.; 1900.

Skinner, Henry.

Diptera of Beulah, New Mexico. Trans. Amer. Entom. Society, xxix, 104-106; Feb., 1903.

About 135 species listed. The new ones described by Coquillett and Johnson, *q. v.*

Slingerland, Mark Vernon.

The Cabbage Root Maggot, with Notes on the Onion Maggot and Allied Insects. Bull. 78, Cornell University Exp. Station; Nov., 1894, pp. 481-577, 18 figs.

Life history of *Phorbia brassica* BOUCHÉ, and notes on other species. An admirably thorough piece of work.

The Current-Stem Girdler and the Raspberry-Cane Maggot. Bull. 126, Cornell University Exp. Sta.; Feb., 1897, pp. 39-60, figs.

The Raspberry-Cane Maggot is described and its habits given, with bibliography, but the species is not determined. It is mentioned as *Phorbia* sp. See next article.

The Raspberry-Cane Maggot. Canadian Entomologist, xxix, 162, 163; July, 1897.

Life history; described in the article as *Phorbia rubivora* by Coquillett.

A New Cherry Pest. Bull. 172, Cornell University Exp. Sta., Sept., 1899; 19 pp., 15 figs.

Supposed to be *Rhagoletis cingulata* LOEW; the determination is confirmed from bred specimens in Canad. Ent., xxxiv, 28, 1902.

Slosson, Annie Trumbull.

List of Diptera from the White Mountains, New Hampshire. In Entomological News, as follows: Vol. v, 6; vi, 6, 7 and 319, 320; vii, 263, 264; viii, 239, 240; ix, 252; xi, 320, 321; xiii, 7, 8 and 319, 320.

In all several hundred species, none described as new, but some European species and genera not hitherto reported from the United States. The determinations are almost all by Coquillett.

Mount Washington Again. Entomological News, v, 271-274, 1894.

Collecting notes; several Diptera mentioned.

Singular habit of a Cecidomyid. Entomological News, vii, 238, 1896.

An undetermined species riding on the wing of a flying Chrysopa.

Hunting Empids. Entomological News, xiv, 265-268, 1903.

Collecting notes; habits of several species.

Smith, John B.

Note on Habits of *Volucella fasciata*. Canadian Entomologist, xxiii, 242, 243, 1891.

The Horn Fly. Special Bulletin No. 62, New Jersey Experiment Station, Nov., 1889; 40 pp., 9 figs.

Life history of *Hæmatobia serrata* DESV.

The Insects Injurious affecting Cranberries. Special Bulletin K, N. J. Exp. Sta., Feb., 1890; 43 pp., 26 figs.

Cecidomyia vaccinii, n. sp.; the name was changed by Johnson to *oxycoccana*, on account of preoccupation.

A Contribution towards the Knowledge of the Mouth Parts of Diptera. Trans. Amer. Entom. Society, xxii, 319-339, 1890.

Notes on the Structure and History of *Hæmatobia serrata* Desv. Psyche, v, 343-347, figs., 1890.

An Essay on the Development of the Mouth Parts of Certain Insects. Transactions of the American Philosophical Society, xix, 175-198, 3 plates; 1896.

Treats of mouth parts of Diptera especially.

Life History of *Aedes smithii*. Jour. N. Y. Ent. Society, x, 10-15; Mar. 1902.

Notes on the early Stages of *Corethra brakeleyi*. Canadian Entomologist, xxxiv, 139; June, 1902.

The Salt-Marsh Mosquito. Special Bulletin T, N. J. Exp. Sta., 1902; 10 pp., figs.

Life history of *Culex sollicitans* WALK.

Notes on the Early Stages of *Culex canadensis* Theob. Entomological News, xiii, 267-273; Nov., 1902.

Characters of some Mosquito Larvæ. Entomological News, xiii, 299-303, 1 pl.; Dec., 1902.

Report of the Entomological Department of the N. J. Exp. Sta. for 1902.

A Report on Mosquito Investigations, pp. 511-556, mostly on the Salt-Marsh Mosquito, *Culex sollicitans* Walk. Also has an article on Mosquitoes and malaria, by Herbert Parlin Johnson.

Notes on *Culex serratus* Theob. Entomological News, xiv, 309-311, 1 pl.; Dec., 1903.

Snodgrass, R. E.

The Inverted Hypopygium of *Dasyllis* and *Laphria*. Psyche, x, 399, 400, 1902. Purely morphological.

The Terminal Abdominal Segments of Female Tipulidæ. Jour. N. Y. Ent. Soc., xi, 177-188, 2 pl.; December, 1903.

Characters of several previously-known species described.

Snow, F. H.

Musca domestica L. versus *Vespa occidentalis* Cress. *Psyche*, III, 340; May, 1882.

Notes on the distribution of *Musca domestica*.

A Preliminary List of the Diptera of Kansas. *Kans. Univ. Sci. Bull.*, II, 211-223; Nov., 1903.

392 species listed; 6 new species are described by Adams. Unfortunately this reached me so late that I could add only the new species to the catalogue.

Snow, William A.

The Moose-fly—A New *Hæmatobia*. *Canadian Entomologist*, XXIII, 87-89, 1891.

Hæmatobia alcis, n. sp., from Northern Minnesota.

Notes and Descriptions of Syrphidæ. *Kans. Univ. Quarterly*, I, 33-40, 1 pl., 1892.

Four new species; many others mentioned.

Descriptions of North American Trypetidæ. *Kans. Univ. Quarterly*, II, 159-174, 2 plates, 1894.

Fourteen new species; *Xenochæta* and *Polymorphomyia* n. gen.

American Platypezidæ. *Kans. Univ. Quart.*, III, 143-152, 1 pl., 1894.

American Platypezidæ. II. *Op cit.*, III, 205-207; 1895.

In these papers eleven new species are described; there are also tables of genera and species.

Cnephalia and its Allies. *Kans. Univ. Quarterly*, III, 177-186, 1895.

A study of the genera in the neighborhood of *Gonia* and *Spallanzinia*; *Cnephalia pausa* and *finitima*, n. sp.

A New Species of Pelecocera. *Kans. Univ. Quarterly*, III, 187, 1895.

P. willistonii, from New Mexico.

Diptera of Colorado and New Mexico. *Kans. Univ. Quarterly*, III, 225-247, 1895.

Confined to Syrphidæ. 13 n. spp.; notes on many other western species.

Supplementary List of North American Syrphidæ. *Kans. Univ. Quarterly*, III, 249-262, 1895.

List of species from 1878, with some changes in nomenclature.

On *Toxotrypana* of Gerstaecker. *Kans. Univ. Quart.*, IV, 117-119, fig., 1895.

A List of Asilidæ, Supplementary to Osten Sacken's Catalogue, etc. *Kans. Univ. Quarterly*, IV, 173-190, 1896.

Considerable changes in synonymy, especially of the tropical species.

Snow, W. A. and Mills, Helen.

The Destructive Diplosis of the Monterey Pine. *Entomological News*, XI, 490-494, 1 plate; June, 1900.

Diplosis pini-radiata n. sp.

Snyder, Mrs. A. J.

Trypeta solidaginis. *Canadian Entomologist*, XXX, 99, 100; Apr., 1898.

Description of the emergence of the adult.

Speiser, Paul.

Ueber die Nycteribiiden. *Wiegmann's Archiv. für Naturgeschichte*, LXVII, 11-78, 1 plate; 1901.

Important for the classification; no new North American species.

Besprechung einiger Gattungen und Arten der Diptera pupipara. Termész. Füzetek, xxv, 1902, 327-338.

Ornithomyia erythrocephala LEACH is made the type of a new genus, *Ornithoctona*; *Ornithoica confluenta* SAY redesc.

Studien über Diptera Pupipara. Zeitschr. f. Syst. Hym. und Dipterologie, III, 145-180, 1903.

A very thorough work, referring to several North American species; *Lynchia pusilla* n. sp., from Cuba. Bigot's types in the family are elucidated, from examination.

Staeger, C.

Groenland's Antliater. In Kröyer's Naturhist. Tidsskrift, new ser., I, 346-369, 1845.

Eight new species; fifty-five species mentioned in all.

Stedman, J. M.

Thirty-fourth Report Board of Agriculture of Missouri, 1902.

Contains articles on Hessian Fly (p. 76) and Wheat Bulb-Worm (p. 85); no new species.

Stein, P.

Die Anthomyiden-Gruppe Homalomyia. Berliner Entom. Zeitsch., XL, 1-146, 1895.

Several North American species also occurring in Europe are redesc.

Nordamerikanischen Anthomyiden. Berliner Entom. Zeitschr., XLII, 161-288, 1897.

Many new species, several new genera; the foundation of our knowledge of the North American fauna in this family.

Die Walker'schen Aussereuropäischen Anthomyiden in der Sammlung des British Museums zu London. Zeitschr. f. Syst. Hym. und Dipterologie, 1901, 185-221.

A reexamination of Walker's types, with descriptions of many. Three labeled but unpublished species of Walker are described—*Hydrotæa succedens*, *Hylemyia relata* and *Pegomyia debilis*, from North America. These of course are credited to Stein, not Walker.

Die Zetterstedt'schen, Holmgren'schen und Boheman'schen Anthomyidentypen des Stockholmer Museums. Wiener Entom. Zeitung, XXI, 29-66, 1902.

Holmgren's Greenland species are elucidated.

Summa, H.

The Pseudo-parasitism of Diptera in Man, or Myiasis. St. Louis Med. & Surg. Journal; April, May and June, 1889; sep., 16 pp., 5 figs.

Swederus, Samuel.

Et Nytt Genus och Femtio Nya Species af Insecter. In the Vetenskap. Acad. Nya Handl., 1787, p. 181 and 276.

"Two North American species: *Musca tomentosa*, which is probably *Brachypalpus verbosus*, and *Musca (Syrphus) monoculus*; I cannot make out the synonymy of the latter."—O. S.

Theobald, Fred. V.

A Monograph of the Culicidæ of the World. London, British Museum. Vols. I and II and vol. of col. plates, 1901; Vol. III, 1903.

All the North American species known at the time of preparation are redescribed in this great work; there are also numerous new species, espe-

cially from along the southern limits of our field. In the 3d volume many new genera are introduced. The classification of Theobald is closely followed herein.

Description of a New N. A. Culex. Canadian Entomologist, xxxv, 211-213, 1903.

C. Kelloggii, which is a synonym of *C. tarsalis* Coq.

Notes on Culicidæ and their Larvæ from Pecos, N. M., and Description of a New Grabhamia. Canadian Entomologist, xxxv, 311-316, 1903.

G. vittata.

Thomson, C. G.

Kongliga Svenska Fregatten Eugenies Resa Omkring Jorden. Diptera. Stockholm, 1868; 1 vol., 4to.

Forty-nine new species from California and Panama.

Thunberg, Carl P.

Description of Pantophthalmus tabaninus, in Acta Soc. Gotheburg, 1819, pars III, 7, pl. VII, f. 2. So quoted by Wiedemann, who reproduces the description in Auss. Zweifl., I, 110. The paper is not mentioned by Hagen in his Bibliotheca.

Townsend, C. H. Tyler.

Notes on Some Interesting Flies from the Vicinity of Washington. Proc. Ent. Society of Washington, 1, 254, 255, 1890.

Notes on six species; none new.

On the Fall Occurrence of Bibio and Dilophus. Proc. Ent. Soc. Wash., 1, 260-263, 1890.

Notes; no new species.

A Remarkable New Hippoboscid from Mexico. Entomological News, II, 105, 106; June, 1891, and note III, 177, 178, 1892.

Trichobius dugesii n. sp.

Two New Tachinidæ. Psyche, VI, 83-85; May, 1891.

Tachina clisiocampæ (syn. of *mella*) and *Phorocera promiscua* (syn. of *Frontina frenchii*).

Description of a Muscid Bred from Swine Dung, with Notes on Two Muscid Genera. Canadian Entomologist, xxIII, 152-155; July, 1891.

Cleigastra suisterci n. sp. (syn. of *Scatophaga furcata* SAY).

A New Simulium from Southern New Mexico. Psyche, VI, 106, 107; July, 1891.

S. occidentale (syn. of *meridionale*).

A Tachinid Bred from a Chrysalis. Canadian Entomologist, xxIII, 206, 207; Oct., 1891.

Meigenia websteri n. sp. (syn. of *Frontina frenchii*).

An Exorista Parasitic on Lagoa opercularis. Entomological News, II, 159, 160; Oct., 1891.

Exorista lagoæ n. sp., from Mexico.

A Parasite of the Fall Web-worm. Psyche, VI, 176, 177; Nov., 1891.

Meigenia hyphantriæ n. sp.; afterwards referred to *Hyphantrophaga* n. gen. as type.

A Tachinid Parasite of Chrysophanus dione. Entomological News, II, 197-199; Dec., 1891.

Exorista chrysophani n. sp. (syn. of *E. confinis*).

A Tachinid Parasite of the Oak Unicorn Prominent (*Schizura unicornis*).
Psyche, vi, 187, 188; Dec., 1891.

Masicera schizuræ n. sp. (syn. of *Frontina frenchii*).

Note on the Genera *Triptotricha* and *Agnotomyia*. *Proc. Ent. Soc. Wash.*,
 ii, 117, 118, 1891.

No new species. "

The North American Genera of Calyptrate Muscidæ.

I. *Proc. Ent. Soc. Wash.*, ii, 89-100; 1891.

II. *Trans. Amer. Ent. Soc.*, xix, 133-144; 1892.

III. *Trans. Amer. Ent. Soc.*, xix, 273-278; 1892.

IV. *Trans. Amer. Ent. Soc.*, xix, 279-284; 1892.

V. *Trans. Amer. Ent. Soc.*, xix, 290-294; 1892.

Tables of genera, with notes and references; no new species.

Notes on North American Tachinidæ, with Descriptions of New Species.

I. *Proc. Ent. Soc. Wash.*, ii, 134-146; 1891.

II. *Trans. Amer. Ent. Soc.*, xviii, 249-382; 1891.

III. *Trans. Amer. Ent. Soc.*, xix, 88-132; 1892.

IV. *Entomological News*, iii, 80, 81 and 129, 130; 1892.

V. *Canadian Entomologist*, xxiv, 64-70 and 77-82; 1892.

VI. *Canadian Entomologist*, xxiv, 165-172; 1892.

VII. *Trans. Amer. Ent. Soc.*, xix, 284-289; 1892.

Many new genera and species.

Description of a Sarcophagid Bred from *Helix*. *Psyche*, vi, 220, 221; Feb.,
 1892.

Sarc. helcis n. sp.

A Tachinid Bred from *Protoparce jamaicensis* Butler in Jamaica. *Jour.*
Inst. of Jamaica, i, No. 2, p. 70; Feb., 1892.

Masicera protoparcis n. sp. (syn. of *Sturmia distincta*).

A New Genus of Tachinidæ. *Psyche*, vi, 247; Apr., 1892.

Hyphantrophaga n. gen.; type *hyphantriæ* TOWNSEND.

A Tachinid Parasite of *Eucaterpa variaria* Grote, and Other Notes. *Psyche*,
 vi, 258, 259; Apr., 1892.

Hyphantrophaga hyphantriæ TOWNS.; no new species.

A Sarcophagid Parasite of *Cimbex americana*. *Canadian Entomologist*,
 xxiv, 126, 127; May, 1892.

Sarcophaga cimbicis, n. sp.

New Jamaica Tachinidæ. I. *Entomological News*, iii, 146, 147; June, 1892.

Pseudohsytricia exilis, n. sp.

The North American Genera of Nemocerous Diptera. *Trans. Amer. Ent.*
Soc., xix, 144-160; June, 1892.

Tables of genera, with notes and references; no new species.

An *Aporia* Bred from *Limacodes* sp. *Psyche*, vi, 275, 276; June, 1892.

Aporia limacodis, n. sp. (syn. of *Macquartia pristis*).

Descriptions of Oestrid Larvæ taken from the Jack-rabbit and the Cotton-
 tail. *Psyche*, vi, 298-300; June, 1892.

Two species of larvæ, one identified (1893, 541 and 1897, 8, 9) as *Cute-
 rebra fontinella* CLARK, and later as a new species, *C. lepusculi*; the other
 was described as *Dermatobia* sp., and afterward referred to *Bogeria*. See
 also *Ins. Life*, v, 137.

Introduction to Brauer and von Bergenstamm's Vorarbeiten, etc. *Psyche*, vi, 313-316 and 329-332; 1892.

A translation of the introduction mentioned. Contains some interesting generalizations; no species mentioned.

On the So-Called Throat Bot. *Entomological News*, iii, 227; Nov., 1892.

Notes on *Gastrophilus nasalis* LINN.

Preliminary Grouping of *Sapromyza*, with one New Species. *Canadian Entomologist*, xxiv, 301-304; Dec., 1892.

S. ocellaris, n. sp. (syn. of *vulgaris* FITCH).

A Dexiid Parasite of a Longicorn Beetle. *Journal of the Institute of Jamaica*, i, pt. 3, 1892.

Sarcodexia sternodontis n. gen. and sp., from Jamaica.

A Scorpion Parasite. *Jour. Inst. of Jamaica*, i; Dec., 1892.

Same species as preceding.

A General Summary of the Known Larval Food-habits of the Acalyptrate Muscidae. *Canadian Entomologist*, xxv, 10-16; Jan., 1893.

A useful compilation; no new species.

An Interesting Blood-sucking Gnat. *Psyche*, vi, 369-371; Jan., 1893.

Tersesthes torrens n. gen. and sp., from New Mexico.

The Pupa of *Argyramœba œdipus*. *American Naturalist*, Jan., 1893, p. 60.

A Trypetid Bred from Galls of *Bigelovia*. *Canadian Entomologist*, xxv, 48; Feb., 1893.

Eurosta bigeloviae n. sp.; on p. 112 Cockerell calls attention to the fact that the species had already been described by himself as *Trypeta bigeloviae*.

On the Geographic Range and Distribution of the Genus *Trichopoda*. *Entomological News*, iv, 69-71; March, 1893.

No new species.

Description of a new and Interesting Phasiid-like Genus of Tachinidæ, s. str. *Psyche*, vi, 429, 430; April, 1893.

Hyalomyodes weedii n. gen. and sp. (syn. of *H. triangulifera* Lw.).

The Puparium of *Blepharipeza*. *American Naturalist*, April, 1893, 402.

A New Trypetid from Chacaltianguis, Mex., with note on *Trypeta amabilis* Loew. *Zoe*, iv, 13-16; Apr., 1893.

Euaesta latipennis n. sp.

On a Species of *Simulium* from the Grand Canyon of the Colorado. *Trans. Amer. Ent. Soc.*, xx, 45-48, figs.; Apr., 1893.

Larva and pupa of *Simulium* sp., not determined.

The Puparium and Pupa of *Subula pallipes* Loew. *Entomological News*, iv, 163; May, 1893.

Description of the Pupa of *Toxophora virgata* O. S. *Psyche*, vi, 455-457; May, 1893.

Note on *Atropharista jurinoides*. *Psyche*, vi, 461; May, 1893.

A Nycteribid from a New Mexican Bat. *Journal of the New York Entomological Society*, i, 79, 80; June, 1893.

Nycteribia antrozoi n. sp.

Hosts of North American Tachinidæ, etc. Paper I. *Psyche*, vi, 466-468; June, 1893.

Breeding records of 27 species, reared by Professor S. A. Forbes; *Sarcophaga leucaniæ* n. sp. "if found to be undescribed."

Comments on Mr. Van der Wulp's Recent Diagnoses of New Species of Mexican Muscidae. Canadian Entomologist, xxv, 164-168; July, 1893.

An attempt to interpret Van der Wulp's too brief diagnoses, without the material to throw any particular light on them; an altogether superfluous piece of meddling. The changes of generic names are both uncalled for.

A Cabbage-like Cecidomyioid Gall on *Bigelovia*. Psyche, vi, 490; July, 1893. *Cecidomyia bigelovia-brassicoides* n. sp.; gall only.

Further Notes on the Cotton-tail Bot. Insect Life, v, 317-320; July, 1893.

Cuterebra fontinella CLARK redescribed. This afterward proved to be a new species and was named *C. lepusculi* in Psyche, Jan., 1897, 8, 9.

Notes on Some Jamaican Muscidae. Journal of the Institute of Jamaica, I, No. 7; Aug., 1893.

No new species.

Dipterous Parasites in Their Relation to Economic Entomology. Insect Life, vi, 201-204; Dec., 1893.

No new species.

Notes on some Cecidomyiidae of the Vicinity of Washington, D. C. Proc. Ent. Soc. Wash., II, No. 4, pp. 388-390; 1893.

Three species mentioned; none new.

Notes on Certain Cecidomyioid Galls on *Cornus*. Proc. Ent. Soc. Wash., II, 390, 1893.

Describes the gall of the species afterward named *Cecidomyia clavula* by Beutenmüller.

Occurrence of *Oecacta furens* Poey in Jamaica. Jour. Inst. Jamaica, I, 381, 1893.

A Tachinid Reared from the Cells of a Mud-dauber Wasp. Bulletin Ohio Exp. Station, Technical series I, 165, 166; 1893.

Sarcomacronychia trypoxylonis n. sp., from Ohio (syn. of *Pachyophthalmus floridensis* TOWNS.).

A very Remarkable and Anomalous Syrphid, with Peculiarly Developed Hind Tarsi. Canadian Entomologist, xxvi, 50-52, figs.; Feb., 1894.

Calotarsa ornatipes n. gen. and spec. It belongs to the Platypezidae, and the genus is but little different from *Platypeza*. Townsend published another note on same, p. 102.

New Santo Domingo Tachinidae. Jour. New York Entomological Society, II, 78, 79; June, 1894.

Trichopoda subciliipes n. sp. and *Ocypterosiphon willistoni* n. gen. and species; the latter is a syn. of *Besikia ælops*, according to Coquillett.

A Cone-like Cecidomyiid Gall on *Bigelovia*. Psyche, VII, 176; Dec., 1894.

Cecidomyia bigelovia-strobiloides n. sp.; gall only.

On the Horse-Flies of New Mexico and Arizona. Kansas Academy of Science, 1894, 133-135.

Diachlorus guttatus n. sp., afterward referred to *Tabanus*.

Note on a Peculiar Acalyptrate Muscid found near Turkey Tanks, Ariz. Kansas Acad. of Science, 1894, 135, 136.

Micropeza turcana n. sp.

Contributions to the Dipterology of North America.

I. Syrphidæ. Trans. Amer. Ent. Soc., xxii, 33-55; March, 1895.

Mentions 75 species of Syrphidæ, 8 new.

II. Tabanidæ, Conopidæ, Tachinidæ, etc. Ibid., 55-80.

Notes on many species of these families, 9 new.

Notes on The Diptera of Baja California. Proc. Cal. Acad. Acad. Sci., ser. 2, vol. iv, 593-620; Apr., 1895.

Occurrence and notes on many species; 14 new.

Note.—Baja California is Lower California, and is so cited in the catalogue. It is in Mexico.

On the Cabbage-shaped Gall of *Cecidomyia salicis-brassicoides*, and its Occupants. Canadian Entomologist, xxvii, 205-207; Aug., 1895.

Description of gall and its larva, etc.

On the Correlation of Habits in Nemocerous and Brachycerous Diptera between Aquatic Larvæ and Blood-sucking Adult Females. Jour. N. Y. Ent. Soc., iii, 134-136; Sept., 1895.

No new species.

On the Bio-geography of Mexico, Texas, New Mexico and Arizona. Texas Acad. Science, Dec., 1895, pp. 77-96 and June, 1897, pp. 33-86.

The second part contains some local lists of Diptera; all or nearly all are printed in other papers.

Notes on the Species of Exorista of Temperate North America. Psyche, vii, 329-331; Jan., 1896.

E. nigripalpis n. sp.

On a Collection of Diptera from the Lowlands of Rio Nautla in the State of Vera Cruz. Annals and Mag. of Nat. Hist., ser. 6, vol. xix, 15-34, and xx, 20-33 and 272-291; January, July and September, 1897.

16 new species; a few varieties named; notes on a number of species.

Diptera from the Sacramento and White Mountains in Southern New Mexico. Annals and Mag. of Nat. Hist., ser. 6, vol. xix; Feb., 1897.

Pipiza occidentalis, *Milesia bella*, *Echinomyia victoria* and *neglecta*, new; the last two are assigned by Coquillett to *Archytas lateralis* and *Peleteria tessellata*.

Diptera from Yucatan and Campeche. I. Canadian Entomologist, xxix, 197-199; Aug., 1897.

Tabanus campechianus and *yucatanus* n. spp.; notes on others.

Diptera from the Lower Rio Grande or Tamaulipan Region of Texas. Journal of the New York Entomological Society, v, 171-190; Dec., 1897.

Simulium tamaulipense, *Baccha tropicalis*, *Zodion albonotatum* n. spp.; notes on others.

Part II of same, vi, 50-52; 1898; contains one new sp., *Volucella tamaulipana*, with notes on other species.

Description of the Bot-fly of the Cotton-tail Rabbit in New Mexico. Psyche, viii, 8, 9; Jan., 1897.

Cuterebra lepusculi n. sp.

Diptera from the Head Waters of the Gila River. I. Psyche, viii, 38-41; Mar., 1897.

Chrysops ceras and *facialis*, *Myobia gilensis* n. spp., and a few notes.

II. Ibid., pp. 92-94; July, 1897.

Tabanus gilanus and *intensicus* n. spp.; notes on three species.

Some characteristic maritime Diptera from the South End of Padre Island and the adjacent Texas Coast. I. Entomological News, ix, 167-169; Sept., 1898.

Tabanus maritimus and *Lipochata texensis* (syn. of *slossonæ*) n. spp.

Diptera from the Organ Mountains of Southern New Mexico.

I. Psyche, viii, 126-128; Oct., 1897.

Notes on four species, none new.

II. Psyche, viii, 267-269; Oct., 1898.

Notes on seven species; *Gediopsis monticola*, new.

Diptera from the White Sands on the Tularosa Plains of Southern New Mexico. I. Psyche, viii, 138-140; Nov., 1897.

A few notes on variations of species, etc.; no new species.

Diptera from the Mesilla Valley of the Rio Grande in New Mexico.

I. Psyche, viii, 147-150; Dec., 1897.

Notes on a dozen species, none new.

II. Ibid., 211, 212; May, 1898.

Notes on three or four species, none new.

New and Little-known Diptera from the Organ Mountains and Vicinity in New Mexico. Transactions of the American Entomological Society, xxvii, 159-164; 1901.

Four new species; notes on a number of old ones.

A Bot-like Parasite of a Bird. Journal Institute of Jamaica.

Not seen; I am unable to complete the reference.

Van der Wulp, Frederick M.

Eenige noordamerikaansche Diptera. Tijdschrift voor Entomologie, x, 125-164, 3 pl.; 1867 (Also cited as vol. ii, sec. series; Osten uses this form, and I have followed him, but in later work Van der Wulp cites it as vol. x).

30 new N. A. spp., 18 European species recognized, and 24 described N. A. spp. identified, all from Wisconsin.

Nog iets over Noordamerikaansche Diptera. Tijdschrift v. Ent., xii (or iv, sec. ser.), 80-86; 1869.

Five new N. A. species.

Opmerkingen omtrent Uitlandische Asiliden. Tijdschrift v. Ent., xiii (or v, sec. ser.), sep. 11 pp., 1 pl.; 1870.

Stenopogon ochraceus n. sp., from North America.

Amerikaansche Diptera.

No. 1. Tijdsch. v. Ent., xxix, 141-168, 1 col. plate; 1881.

No. 2. Tijdsch. v. Ent., xxv, 77-136, 2 col. plates; 1883.

No. 3. Tijdsch. v. Ent., xxvi, 1-60, 2 col. plates; 1883.

These contain 14 new species from North America, with notes on about 127 other species.

Notes from the Leyden Museum. iv, 73-93, 1882.

Anthrax melasoma and *Jurinia nitida* n. spp., the former redesc. in Amer. Dipt., No. 2.

Chrysops geminata Wied. and Macq. Wiener Ent. Zeitung, iii, 139-141, 1884.

Chrysops crassicornis n. sp., from Guanajuato, Mex.

Quelques Diptères Exotiques. Comptes Rendus de la Soc. Ent. Belgique, xxvii, p. cxcxi, 1884.

Hystericia cyaneiventris n. sp., from Guanajuato, Mex.

Nalezing over Amerikaansche Diptera. Tijdsch. v. Ent., xxvii, 1884; sep. 3 pp.

Notes on four described species from New England.

Langwerpige Dexinen-Formen. Tijdsch. v. Ent., xxviii, 189-200, 1 col. plate; 1885.

Euantha and *Leptoda* n. gen.; the species were previously described.

Sarcophagula, een nieuw Geslacht der Sarcophaginæ. Tijdsch. v. Ent., xxx, 173, 174, 1887.

No new species.

Biologia Centrali-Americana. Diptera, vol. ii. Pp. 1-489, 13 col. plates, title-page, introduction, and index of plate-figures. London; April, 1888, to May, 1903. The date is printed at the bottom of every eighth page.

Many new genera and species.

Eenige Uitlandische Diptera. Tijdschr. v. Ent., xxxiv, 193-218, 1891.

Volucella testacea n. sp., from Curaçao.

Diagnoses of New Mexican Muscidae. Tijdsch. v. Ent., xxxv, 183-195, 1892.

Four genera and about 60 species new; all described in full in subsequent parts of Biologia.

Vanhoffen, E.

Fauna und Flora Grönlands. Grönlands-Expedition der Gesell. für Erdkunde zu Berlin, 1891-93, unter Leitung v. Erich v. Drygalski. Vol. ii, 1, 1897.

Contains a list of Greenland Diptera, compiled, pp. 156, 157. This is reproduced by Lundbeck, Dipt. Groenl., ii, 314, correcting nomenclature.

Verrall, G. H.

British Flies. Vol. viii: Platypozidae, Pipunculidae and Syrphidae. London, Gurney and Jackson, 1901. With catalogue and bibliography in appendix. Pp. 691 and 121; many figures in the text.

This fine work contains descriptions of many genera and a considerable number of species, common to Great Britain and North America.

Walker, Francis.

List of the Specimens of Dipterous Insects in the Collection of the British Museum. Four parts and three supplements. London; 1848-55. The dates are as follows: Part i, 1848; ii, iii, and iv, 1849; Suppl. i, ii, 1854; iii, 1855.

Many new species.

Note.—In the Osten Sacken catalogue occur many species of Walker with the locality "Huds. B. Terr." These are cited by Walker as "St. Martin's Falls, Albany River, Hudson Bay." I requested Dr. Jas. Fletcher to find this locality for me on the modern maps; he found it now named Martin's Falls, and located in longitude 86.30, latitude 51.30,—in other words, about 200 miles north of the northern arch of Lake Superior.

Insecta Saundersiana. Diptera. Five Parts, with eight plates by Westwood. London, 1850-56. Dates as follows: Part i in 1850, ii, in 1851, iii and iv in 1852, and v in 1856.

Many species and a few genera.

Characters of Undescribed Diptera in the Collection of Wm. Saunders. Transactions of the Entomological Society [of London], new series, iv, 1857, pp. 119-158 and 190-235; v, 1858, 268-334.

Many new species, mostly described in a very brief and unsatisfactory manner.

On Some Insects of Nova Scotia and Canada. Canadian Entomologist, III, 141; Oct., 1871.

A short list of Diptera occurring in Nova Scotia; no new species.

In the appendix to "The Naturalist in Vancouver Island and British Columbia," by J. K. Lord (London, 1866, 2 vols.), Walker described four new species of Diptera from those regions—*Culex pinguis*, *Laphria columbica*, *Cuterebra approximata* and *Eurygaster septentrionalis*.

Note.—Walker's descriptions are notoriously bad. Osten Sacken, Catalogue, 1878, preface, p. xvi, has enlarged a little upon this subject. It was the policy of Osten Sacken and Loew not to adopt Walker's names unless, as is very rarely the case, the description contains some positive mark of identification. In their view, it was preferable to describe as a new species in doubtful cases. Some recent American workers have followed a different principle, and recognized Walker's species on mere preponderance of evidence; this I take it is especially true of Mr. Coquillett. It is desirable that each student of the order examine the descriptions for himself, and form his own conclusions as to the recognizability of any particular one. Furthermore, it is very desirable, in case that one of these specific names be resurrected, that the species be redescribed at the same time; otherwise in most cases other entomologists will be completely in the dark as to the species referred to, and confusion will be increased. This pending a fuller knowledge of the type, which must some time be arrived at.

Walsh, Benjamin D.

Insects Injurious to Vegetation in Illinois. Rock Island, 1861 (pamphlet).

Exorista (Senometopia) militaris n. sp. (syn. of *Winthemia quadripustulata*).

On certain Remarkable or Exceptional Larvæ, etc. Boston Society of Nat. Hist., IX, 286-308, 1864.

Mydas fulvipes n. sp.

On the Insects, coleopterous, hymenopterous and dipterous, Inhabiting Galls of certain Species of Willow. Proceedings of the Entomological Society of Philadelphia, III, 543-644 and VI, 223-288; 1864 and 1868.

Numerous species of Cecidomyidæ and their galls, new.

First Annual Report on the Noxious Insects of the State of Illinois. Transactions of the Illinois State Horticultural Society, appendix. Chicago, 1868.

Trypeta pomonella n. sp., now referred to *Rhagoletis*.

Mr. Couper's Thorn-leaf Gall. Canadian Entomologist, I, 79, 1869.

Cecidomyia crategi-bedeguar n. sp.

Larvæ in the Human Body. American Entomologist, II, 137, 1870.

"Contains description of three larvæ of Homalomyia, designated as *H. wilsoni*, *leydii* and *prunivora*. Perfect insect not described." O. S.

Washburn, F. L.

Hessian Fly Reared in the Laboratory. Canadian Entomologist, XXXV, 316; Nov., 1903.

Existence of a second brood proved in Minnesota.

Gastrophilus epilepsalis. Canadian Entomologist, XXV, 320; Nov., 1903.

A species identified as this affecting man as a *subcutaneous* parasite;

evidently an error of determination, as stated by Banks in the succeeding number of the journal.

Webster, F. M.

Report on Buffalo Gnats. Bull., 14, Division of Entomology, Dept. of Agriculture, 29-39; 1887.

On the breeding-places, etc., of Simuliidae in the south; no new species.

Notes on a species of Necrophagous Diptera. Insect Life, 11, 356-358 and 370-372; 1890.

Habits of *Conicera* sp.

Larvæ of a Crane-fly Destroying Young Wheat in Indiana. Insect Life, 11, 12-14; Aug., 1890.

An undetermined Tipulid.

Report on Several Species of Crane-Flies Infesting Meadows, etc. Bull. 26, Div. of Entomology, Dept. of Agriculture, 65-74; 1892.

Tipula costalis mentioned as one.

Methods of Oviposition in Tipulidae. Bulletin Ohio Exp. Sta., Technical Ser., vol. 1, No. 3, p. 151-154, figs.; 1893.

Habits of *Tipula bicornis* LOEW MS. and *Pachyrhina* sp.

A Dipterous Gall-maker and Its Associates. Bull. Ohio Exp. Sta., Tech. ser., 1, 154, 155; 1893.

Gall and Associates of *Lasioptera muhlenbergia* MARTEN.

Notes and Observations on Several Species of Diptera. Canadian Entomologist, xxx, 18, 19; Jan., 1898.

Notes on seven species, mostly reared.

Species of Diptera Reared in Indiana in 1884-1889. Proc. Indiana Acad. Science, 1898, 2 pp.

These rearings had already been reported in Division of Entomology bulletins, No. 10, new ser., and 7, Technical ser.

Some Species of Diptera Inhabiting or Frequenting the Wheat Fields of the Middle West. Canadian Entomologist, xxxii, 212, 213; July, 1900.

18 species reared from wheat and 34 species collected by sweeping in wheat fields; no new species.

Some Insects attacking the Stems of Growing Wheat, Rye, Barley and Oats. Bull. 42, Division of Entomology, 1903, 62 pp.

Treats, among other insects, of *Meromyza americana*, *Oscinis carbonaria* and *soror*.

Weed, C. M.

Note on the Horn Fly. American Naturalist, Jan., 1893, 63.

Weed, H. E.

Note on the Natural Habitat of the Screw-Worm Fly. Canadian Entomologist, xxiii, 243, 1891.

Westcott, Oliver S.

The Distribution of Some North American Syrphidae. Entomological News, viii, 190, 191; October, 1897.

Locality of collection given for 56 species.

Westwood, John O.

On Diopsis, a Genus of Dipterous Insects, etc. Trans. of Linnæan Soc., xvii, 283-313 and 543-550, 2 col. plates; 1837.

Sphyracephala brevicornis is reproduced, description and figure, from Say.

Insectorum novorum exoticorum ex ordine dipterorum Descriptiones. London and Edinburgh Philosophical Magazine, ser. 3, vi, 280, 281 and 447-449; 1835.

Bittacomorpha n. g.; *Lepidophora ageriformis* GRAY, *Pangonia macroglossa* and *Gynoplistia annulata*, all from North America.

Insectorum nonullorum novorum (ex ordine Dipterorum) Descriptiones. Annales Soc. Ent. de France, iv, 681-685; 1835.

Limnobiorthynchus canadensis n. sp., from Canada.

Note.—I have not seen this and the preceding; from data in Osten Sacken, Hagen, etc., they seem to be the same article, the latter having one species added.

Description of Some New Exotic Acroceridæ. Transactions of the Entomological Society [of London], v, 91, 1848.

Six new species from North America.

Synopsis of the Dipterous Family Midasiidæ, with Descriptions of numerous Species. Arcana Entomologica, i, two col. plates; 1841-43.

Five new species from North America.

Generis Dipterorum Monographia Systropi. Guérin's Magazin de Zoologie, 1842.

Systropus favonoides n. sp., from Mexico.

Diptera nonnulla exotica Descripta. Trans. Ent. Society, v, 231, 1850.

Ceria daphnæus WALKER, from Jamaica, described and figured.

Notæ Dipterologicæ. Monogr. of the Genus Systropus, etc. Trans. Ent. Soc. London, 1876.

Reproduces description of *Systropus favonoides*.

Notæ Dipterologicæ. Desc. of New Genera and Species of the Family Acroceridæ. Trans. Ent. Soc. London, 1876.

Pialoidea n. gen. for *Cyrtus magnus* from Georgia.

Wheeler, Wm. M.

On Two New Species of Cecidomyid Flies Producing Galls on *Antennaria plantaginifolia*. Proc. Wis. Nat. Hist. Society, April, 1889, 209-216.

Cecidomyia antennaria and *Asynapta antennaria* n. spp.; note on habits of adult, and on courtship of *Dolichopus plumipes*.

Descriptions of Some New North American Dolichopodidæ. Psyche, 1890, 337-343; 355-362; 373-379.

Aphantotimus and *Peloropcodes* n. gen. (the former syn. of *Thrypticus*); several new species.

The Supposed Bot-fly Parasite of the Box-turtle, Psyche, 1890, 403.

The Genus Ochthera. Entomological News, vii, 121-123, figs.; Apr., 1896.

O. lauta n. sp.

Two Dolichopodid Genera New to America. Entomological News, vii, 152-156; May, 1896.

Xiphandrium americanum (syn. of *Chrysotus barbatus* Lw.) and *Thinophilus pectinifer* n. sp.

A New Genus and Species of Dolichopodidæ. Entomological News, vii, 185-189, figs.; June, 1896.

Parhydrophorus canescens; the genus is hardly distinct from *Hydrophorus*.

A New Empid with Remarkable Middle Tarsi. Entomological News, vii, 189-192, fig.; June, 1896.

Rhamphomyia scaurissima n. sp.

An antenniform Extra Appendage on *Dilophus tibialis* Loew. Archiv für Entwicklungsmechanik der Organismen, III, 261-268, 1 plate; Leipzig, 1896.

A New Genus of Dolichopodidæ. Zoological Bulletin, I, 217-222, figs; 1898.

Drepanomyia (syn. of *Hypocharassus* Mlk) *pruinosa* and *johnsoni* (the latter a syn. of *H. gladiator* Mlk).

New Species of Dolichopodidæ from the United States. Proc. Cal. Acad. Sci., 3d series, I, 1-80, 4 plates; 1899.

Many new species; two new genera, *Parasyntormon* and *Nothosympycnus*.

A Genus of Maritime Dolichopodidæ new to America. Proc. Cal. Acad. Sci., 3d ser., I, 145-152, 1 plate; 1899.

Aphrosylus prædator, *director* and *grassator*, new, from California.

Anemotropisms and Other Tropisms in Insects. Archiv für Entwicklungsmechanik der Organismen, VIII, 373-381; 1899.

Several Diptera mentioned as illustrations.

The Genus *Hypocharassus*. Entomological News, XI, 423, 1900.

Synonymy of *Drepanomyia*.

Microdon Larvæ in Pseudomyrma Nests. Psyche, July, 1901, 222, fig.

An undetermined species collected in Mexico.

An Extraordinary Ant-guest. American Naturalist, XXXV, 1007-1016, figs.; Dec., 1901.

Larva and puparium of an undetermined Phorid, commensal with the larva of *Pachycondyla harpax* at Austin, Tex.; one of the most interesting entomological articles I have ever seen.

Wheeler, Wm. M. and Melander, Axel L.

Biologia Centrali-Americana. Diptera, vol. I. Family Empidæ, pp. 366-376; Dec., 1901.

Eighteen new species.

Whitney, C. P.

New Species of Tabanidæ. Canadian Entomologist, XI, 35-38, 1879.

Six species; see also note by Burgess, same volume, p. 80.

Wiedemann, C. R. W.

Diptera Exotica. Vol. I, Kilias, 1821.

This is a Latin work; on the completion of this first volume, it was decided to change to German, and all of this part is incorporated, in German, in his principal work, "Aussereuropäische Zweifl. Insekten."

Analecta Entomologica. Kilias, 1824.

Not seen. Contains 154 Diptera in all, comparatively few from North America.

Aussereuropäische Zweiflügelige Insekten. 2 vols., with 12 plates; Hamm, 1828 and 1830.

This great work contains very many North American Diptera. One of its objects was to elucidate the species of Fabricius, and nearly all the Diptera of that entomologist are redescribed; the original descriptions are also quoted in full. Another valuable feature is the redescription of a large number of Say's species, from material set on by Say himself, presumably typical in most cases. Wiedemann changed some of the specific names of

these; where there seemed to be no valid reason for the alteration, I have followed Say in nomenclature. In most cases of redescription, I omit the locality, as it is the same as in Say's description.

Achias, Dipterorum Genus a Fabricio conditum. Kiliae, 1830; 16 pp., 1 plate.

Sphyracephala (*Achias*) *brevicornis* SAY, redesc. and figured.

Monographia Generis Midarum. Nova Acta Academiæ Naturæ Curiosorum, xv, 19-56, 3 col. plates; 1831.

Four new species from North America.

Williston, Samuel Wendell.

An Anomalous Bombylid. Canadian Entomologist, Nov., 1879, 215.

"*Anthrax* nov. sp., near *fuliginosa*."

Some Interesting New Diptera. Transactions of the Connecticut Academy of Arts and Sciences, iv, 243-246, 1880.

Rhynchocephalus sackenii, *Silvius pollinosus*, *Chrysops discalis*, new.

Eristalis tenax. Note on distribution, Canadian Entomologist, xiii, 76; Aug., 1881.

New or Little Known Genera of North American Syrphidæ. Canadian Entomologist, xiv, 77-82, 1882.

Three new genera, five species; superseded by his Synopsis of the Syrphidæ.

Drosophila ampelophila Loew. Canadian Entomologist, xiv, 138, 1882.

Note on habits and distribution.

Contribution to a Monograph of North American Syrphidæ. Proceedings of the American Philosophical Society, xx, 299-332, 1882.

23 new species, all reproduced in the Synopsis.

On the North American Asilidæ (Dasypogoninæ, Laphrinæ) with a New Genus of Syrphidæ. Transactions of the American Entom. Society, xi, 1-36, 3 pl.; 1883.

20 new species of Asilidæ; *Nausigaster punctulata* n. g. and sp. of Syrphidæ.

The North American Species of Nemestrinidæ. Canadian Entomologist, xv, 69-72, fig.; 1883.

Rhynchocephalus volaticus n. sp., from Fla.; table of species.

North American Conopidæ. Transactions of the Conn. Academy:

I. *Conops*. Vol. iv, 325-342, 1 plate; 1883.

II. *Stylogaster*, *Dalmannia*, *Oncomyia*. Vol. vi, 87-94; 1884.

III. Conclusion. Vol. vi, 377-394, 1 plate; 1885.

In these three numbers are tables of genera and species, old species re-described, and several new; practically a monograph of the family.

The Screw-worm Fly. Psyche, 1883, 132.

Notes on *Chrysomya macellaria* FAB.

Eine Merkwürdige neue Syrphiden-Gattung. Wiener Entom. Zeitung, iii, 185, 186, 1884.

Eucratomyia pergandei n. g. and sp., from D. C.

Note on the Genus *Merapioidus* Bigot. Wiener Entom. Zeitung, iii, 282, 1884.

Dipterous Larvæ from the Western Alkaline Lakes, and their Use as Food. Transactions Conn. Academy, vi, 83-86; July, 1884.

Ephydra californica PACK., described, larva figured.

On the Collection and Preservation of Diptera. Psyche, 1884, 130-132.

Notes on Injurious Insects. Entomological Laboratory, Michigan Agricultural College, 1884. By Professor A. J. Cook.

Description of *Scopolia sequax* n. sp., by Williston; here referred to *Phorichata*.

Article Diptera in Standard Natural History, Vol. v, pp. 403-433, many figs., 1884 (Later editions designated as Riverside Natural History).

General treatment; no new species.

On the North American Asilidæ. II. Transactions of the American Entomological Society, XII, 53-76, 1885.

17 new species.

Exorista infesta n. sp. In 14th Report State Entomol. of Ill., for the year 1884 (pub. 1885), p. 65.

Herein referred to *Winthemia quadripustulata*.

On the Classification of North American Diptera. I. Bull. Brooklyn Entom. Society, VII, 129-131; Feb., 1885.

II. Entomologica Americana, I, 10-13; Apr., 1885.

III. Entomologica Americana, I, 114-118 and 152-155; 1885.

Part II contains *Apatolestes comastes* n. g. and sp.; Part III contains *Scoliopelta luteipes* n. g. and sp.

Notes and Descriptions of North American Xylophagidæ and Stratiomyidæ. Canadian Entomologist, XVII, 121-128; July, 1885.

Nine new species.

Ueber einige Leptiden-Characteren. Entomol. Nachrichten, LXVI, 400, 1885.

On two Interesting New Genera of Leptidæ. Entomologica Americana, II, 105-108, 1886.

Agnotomyia (n. g.) *clongata* SAY and *Arthroceras pollinosum* n. g. and sp. The first genus is a synonym of *Dialysis*.

Ueber *Mallota cimbiciformis*. Berliner Entom. Zeitschr., XXVI, 171, 172, 1886.

Notes on synonymy and dimorphism.

Dipterological Notes and Descriptions. Trans. Amer. Entom. Soc., XIII, 287-307, 1886.

21 new species; many notes on others.

Synopsis of the North American Syrphidæ. Bulletin of the U. S. Natl. Museum, No. 31, Washington, 1886. Pp. xxx and 335, 12 plates.

Contains descriptions of all the North American genera and species known at that time; many new. Indispensable for the family.

North American Tachinidæ. Gonia. Canadian Entomologist, XIX, 6-12; Jan., 1887.

G. senilis, *porca*, *exul*, and *sequax*; some of these are perhaps synonyms of *capitata*, as indicated by Coquillett.

Table of the Families of Diptera. Kansas Academy of Science, X, 122-128, 1887.

Notes and descriptions of North American Tabanidæ. Kans. Acad. Sci., X, 129-142, 1887.

14 new species; tables of species, supplementary to Osten Sacken.

An Australian Parasite of *Icerya purchasi*. Insect Life, I, 21, 22, fig.; July, 1888.

Lestophonus iceryæ n. g. and sp.; see also same volume, pp. 144, 199, and 328-331, figs.

Hilarimorpha and Apiocera. Psyche, Sept.-Oct., 1888, 99-102.

Hilarimorpha mikii n. sp.; discussion of family position.

Synopsis of the Families and Genera of North American Diptera. New Haven, Conn., 1888; J. T. Hathaway.

A pamphlet of 84 pp., with tables of families and genera, and bibliography; on pp. 81 and 82 are reproduced the original descriptions of *Exoptata*, *Enoplemis*, *Megacyttarus* and *Hypocharassus*.

Leucopsis bellula n. sp. Insect Life, 1, 258-259; Feb., 1889.

Notes on Asilidæ. Psyche; Aug.-Dec., 1889, pp. 255-259.

Atonia n. g.; table of genera around *Atomosia*.

The Horn-fly. Entomologica Americana, v, 180, 181; Sept., 1889.

Hæmatobia cornicola n. sp., a syn. of *H. serrata*.

A New Cattle Pest. American Naturalist, 1889 (sep.), 7 pp. and plate.

Notes on the preceding species.

The Dipterous Parasites of North American Butterflies. In Scudder's "Butterflies of the Eastern United States and Canada." Cambridge, 1889.

Six new species; *Acroglossa* n. g.

Note on Syrphids Reared from Cactus. Entom. News, 11, 162; Oct., 1891.

Copestylum marginatum and *Volucella fasciata* so reared.

Biologia Centrali-Americana. Diptera, Vol. III, 89 pp., 2 col. plates. London; Dec., 1891-May, 1892. In August, 1903, three more pages of text were added to complete the volume, along with index, etc.

Vol. I. Supplement, pp. 217-332, 3 col. plates. London; Dec., 1900-Dec., 1901.

Vol. III contains the Syrphidæ, Conopidæ, Pipunculidæ and Platypezidæ; the supplement to Vol. I contains additions to most of the families of Orthorhapha. There are many new species, and a few genera.

A New Species of Criorhina, with notes on Synonymy. Entomological News, III, 145, 146; June, 1892.

C. coquilleti n. sp.; notes on syn. of ten species of Syrphidæ.

On the Apioceridæ and their Allies. Kans. Univ. Quarterly, 1, 101-118. 2 plates and text figs.; Jan., 1893.

An important paper on anatomy; no new species.

Diptera Brasiliana. III. Kans. Univ. Quarterly, 1, 119-122; Jan., 1893.

Contains a discussion of *Stylogaster* and its species.

Notes on Tachinidæ. Psyche, VI, 409, 410; March, 1893; also further notes, p. 492.

Syn. of *Atrapharista*; see Townsend, p. 461 and 492.

North American Psychodidæ. Entomological News, IV, 113, 114; Apr., 1893.

Psychoda albipuncta and *slossoni* n. spp.

Belvosia: A Study. Insect Life, v, 238-240, 1 plate; April, 1893.

A discussion of the variability of generic and specific characters.

Diptera of Death Valley, Cal. In "North American Fauna" (Bull. of Division of Ornithology and Mammalogy, Dept. of Agriculture), No. 7, part 2, pp. 253-259. Washington, May 31, 1893.

16 new species; *Melanodexia* and *Pelomyia* n. gen.

A List of Species of Diptera from San Domingo. Canadian Entomologist, xxv, 170, 171; July, 1893.

43 species listed; none named as new.

New or Little Known Diptera. Kansas Univ. Quarterly, II, 59-70; Oct., 1893.

Many new species, largely from state of Washington; *Orthoncuromyia* n. g. (syn. of *Psilocurus*).

Description of a New Species of Chlorops Reared from Galls on Muhlenbergia. Bull. Ohio Exp. Sta., Technical series, vol. 1, No. 3, pp. 156, 157; 1893.

Chlorops ingrata.

Bibio tristis n. sp. In Kellogg's Insect Notes, Trans. Kans. Acad. Sci., XIII, 113, 1893.

Notes on the Habits of *Rhynchocephalus sackenii* Will. Entomological News, v, 47; Feb., 1894.

On the Genus *Erax*. Entomological News, v, 136, 137; May, 1894.

Invalidity of *Efferia* Coq., etc.

The American Genera of Sapromyzidæ. Entomological News, v, 196, 197; June, 1894.

Table of genera; notes on distribution of species.

On the Genus *Dolichomyia*, with Description of a New Species from Colorado. Kans. Univ. Quarterly, III, 41-43; July, 1894.

D. gracilis; notes on other genera of Bombyliidæ.

A New Tachinid with Remarkable Antennæ. Entomological News, VI, 29-32, figs.; Jan., 1895.

Dichocera lyrata n. g. and sp., from Idaho.

On the Rhopalomeridæ. Psyche, VII, 183-187; Jan., 1895.

The material is all South American.

Rhopalomera xanthops n. sp. Psyche, VII, 213; March, 1895.

From Yucatan.

Dialysis and Triptotricha. Kansas Univ. Quarterly, III, 263-266, fig.; April, 1895.

Dialysis aldrichii n. sp., from Idaho.

New Bombyliidæ. Kans. Univ. Quart., III, 267-269; Apr., 1895.

Desmatoncura argentifrons and *Desmatomyia anomala*, new genera and species.

Two Remarkable New Genera of Diptera. Kans. Univ. Quart., IV, 107-109; Oct., 1895.

Totensendia and *Arthrostylum*; the latter a syn. of *Pheneus* WALK.

Bibliography of North American Diptera. Kans. Univ. Quart., IV, 129-144 and 199-204; Jan. and Apr., 1896.

Fissicorn Tachinidæ. Kans. Univ. Quart., IV, 171, 172, fig.; Jan., 1896.

Notes on *Dichocera* and others.

A New Genus of Hippoboscidæ. Entomological News, VII, 184, 185; June, 1896.

Brachypteromyia femorata n. g. and sp., from Wyoming; in a note at end, 12 genera not previously reported from North America are mentioned.

Manual of North American Diptera. Second edition, rewritten and enlarged. New Haven, Conn., 1896; James T. Hathaway. Pp. liv. and 167.

Anatomy of Diptera, bibliography, table of families, definition of each family, and table of North American genera for each family except Tachinidae and Dexiidae. A few generic names are altered, or new ones proposed, on account of preoccupation. I have omitted all references to this work, except where names are changed, because I assume that all workers with Diptera are familiar with it. To the beginner it is indispensable, and to the advanced worker a great convenience.

On the Diptera of St. Vincent. Transactions of the Entomological Society of London, 1896, pt. 3, pp. 253-446, 7 plates.

Many new genera and species from this island, which is far south in the Lesser Antilles.

Diptera Brasiliana. iv. Kans. Univ. Quarterly, vi, 1-12; Jan., 1897.

Notes on *Lipocheta*; some new genera and species from Grenada, W. I.

On the Genus *Thlipsogaster* Rond. Psyche, March, 1899, 331, 332.

The American species are not of this genus.

Notes and Descriptions of Mydidae. Kansas Acad. Science, 1897, 53-58.

Mydas quadrilineatus and *Ecthypus townsendi*, new North American species; a few South American species.

Note.—An admirable feature of Williston's work, which does not show fairly in the above list, is the attention he has given to identifying and redescribing the species of other writers. In all his longer papers this is a prominent part, frequently occupying as much space as the new descriptions, and requiring more time than they in preparation.

Woodworth, Chas. W.

Gonia senilis Will., Psyche, v, 43, 1889.

Zetterstedt, J. W.

Diptera Scandinaviæ, disposita et descripta. Lundæ, 1842-1860.

While this work treats only of Scandinavian species, there are many which are circum-polar. Zetterstedt's earlier work, *Insecta Lapponica*, is mostly reproduced in this.



CATALOGUE

TIPULIDÆ.

OSTEN SACKEN, Studies in Tipulidæ, I (longipalpi), Berl. Ent. Zeitsch., xxx, 153-188, 1886; II (brevipalpi), loc. cit., xxxi, 163-242, 1887. These papers are crowded with information regarding the genera of Tipulidæ; a few species are mentioned.

SNODGRASS, Jour. N. Y. Ent. Soc., xi, 177-188, 2 pl., 1903; on the structure of the ovipositor, etc., in a number of species.

GERANOMYIA.

HALIDAY, Ent. Mag., I, 54, 1833.

MACQUART, Dipt. Exot., I, 1, 62, 1838 (*Aporosa*).

PHILIPPI, Verh. Zool.-Bot. Ges., 1865, 597, pl. xxxiii, f. 1 (*Plettusa*).

WESTWOOD, Trans. Ent. Soc. Lond., 1881, pl. xix, f. 10.

OSTEN SACKEN, Mon. N. A. Dipt., iv, 78, 1869; Stud. Tipul., II, 173, 1887.

canadensis WESTWOOD, Annales Soc. Ent. France, 1835, 683 (*Limnobiaorhynchus*).—Canada.

OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 207 (*communis*); Mon. N. A. Dipt., iv, 80.—D. C., Wisconsin R., Ill. Cat. gives Cal.

HART, Bull. Ill. State Lab. N. H., iv, 200, oc. in Ill. and note on habits. Canada to Fla. Cal.—O. S. Cat.

distincta DOANE, Jour. N. Y. Ent. Soc., viii, 186, pl. vii, f. 13.—New Bedford, Mass.

diversa OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 207; Mon. N. A. Dipt., iv, 80.—Trenton Falls, N. Y.

N. J.—Smith Cat.

intermedia WALKER, List, I, 47 (*Limnobia*).—Jamaica.

mexicana BELLARDI, Saggio, App., 4 (*Aporosa*).—Mex.

pallida WILLISTON, Trans. Ent. Soc. Lond., 1896, 284, pl. ix, f. 53.—St. Vincent, W. I.

rostrata SAY, Jour. Acad. Sci. Phil., iii, 22; Compl. Works, II, 47 (*Limnobia*).—Pa. and Md.

WIEDEMANN, Auss. Zw., I, 35 (*Limnobia*).

OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 206; Mon. N. A. Dipt., iv, 79.—D. C., N. Y., Mass., Ill., Canada; perhaps Cuba.

St. Vincent, W. I.—Will.; Ill.—Hart; N. J.—Smith Cat.

rufescens LOEW, Linnæa Ent., v, 396, pl. II, f. 9-12 (*Aporosa*).—Porto Rico. Roeder, Stett. Ent. Zeit., 1885, 339, note on male from same locality.

virescens LOEW, Linnæa Ent., v, 396 (*Aporosa*).—St. Thomas.

RHIPIDIA.

MEIGEN, Syst. Besch., I, 153, 1818.

SCHINER, Fauna Austr., II, 564, 1864.

OSTEN SACKEN, Mon. N. A. Dipt., iv, 81, 1869; III, in Additions and Corrections, 1873; Studies in Tipul., II, 174, note.

- biplectinata** WILLISTON, Trans. Ent. Soc. Lond., 1896, 285, pl. ix, f. 54.—St. Vincent, W. I.
- costalis** WILLISTON, Trans. Ent. Soc. Lond., 1896, 286, pl. ix, f. 56.—St. Vincent, W. I.
- domestica** OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 208; Mon. N. A. Dipt., iv, 84, pl. iii, f. 5.—D. C., N. J.; perhaps Brazil. Fla., Drayton Id. and Ormond—Johnson.
- fidelis** OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 209; Mon. N. A. Dipt., iv, 83.—Sharon Spr., N. Y.; Ill. Canada—O. S. Cat.
- maculata** MEIGEN, Syst. Besch., i, 153, pl. v, f. 9–11.—Europe.
MACQUART, Hist. Nat. Dipt., i, 93, pl. ii, f. 1.
STAEGER, Dipt. Dan., 27.
ZETTERSTEDT, Dipt. Scand., x, 4009.
SCHINER, Fauna Austr., ii, 564.
OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 208; Mon. N. A. Dipt., iv, 82.—Huds. Bay Terr.; Me. to Ill.
Sitka—Bergroth.
- subpectinata** WILLISTON, Trans. Ent. Soc. Lond., 1896, 287, pl. ix, f. 57, and pl. x, f. 57a; Biologia, Dipt., Suppl., 226, oc.—St. Vincent, W. I., and Tabasco, Mex.
- unipectinata** WILLISTON, Trans. Ent. Soc. Lond., 1896, 286, pl. ix, f. 55.—St. Vincent, W. I.

DISCOBOLA.

- OSTEN SACKEN, Proc. Phil. Ent. Soc., 1865, 226; Mon. N. A. Dipt., iv, 97 (*Trochobola*, on account of supposed preoccupation of *Discoboli*); Stud. Tipul., ii, 178; notes; Berl. Ent. Zeitsch., xxxix, 256. "There is a group of fishes called *Discoboli* Cuv.;" this however, would not constitute preoccupation of the name, hence I use the original form, following Kertész.
- argus** SAY, Long's Exped., App., 358; Compl. Works, i, 243 (*Limnobia*).—N. W. Terr.
WIEDEMANN, Auss. Zw., i, 33 (*Limnobia*).
OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 217 (*Limnobia*); Mon. N. A. Dipt., iv, 98, pl. i, f. 4 (*Trochobola*).—Mass., Me., N. Y., N. J., Nova Scotia.
White Mts., N. H.—Slosson.
- elegans** DOANE, Jour. N. Y. Ent. Soc., viii, 186, pl. vii, f. 14.—Tokeland, Wash.; Collins, Ida.

DICRANOMYIA.

- STEPHENS, Cat. Brit. Ins., 1829
- OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859; Mon. N. A. Dipt., iv, 53, 1869; Stud. Tipul., ii, 172, 1887.
- badia** WALKER, List, i, 46 (*Limnobia*).—Nova Scotia.
OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 210 (*humidicola*); Mon. N. A. Dipt., iv, 72, pl. iii, f. 2.—D. C., N. Y., Conn.; Cal. in Cat.
- brevivena** OSTEN SACKEN, Mon. N. A. Dipt., iv, 66.—N. Y., D. C.
- brunnea** DOANE, Jour. N. Y. Ent. Soc., viii, 184, pl. vii, f. 6.—Nantucket, Mass.
- chorea** MEIGEN, Syst. Besch., i, 134 (*Limnobia*).—Europe.
SCHUMMEL, Beitr. z. Ent., i, 126 (id.).
SCHINER, Fauna Austr., ii, 569 (id.).
BERGROTH, Wien. Ent. Zeit., vii, 194, oc. in Br. Col. (High Cascades).

- cinerea* DOANE, Jour. N. Y. Ent. Soc., VIII, 182, pl. VII, f. 2.—Pullman, Wash.
- citrina* DOANE, Jour. N. Y. Ent. Soc., VIII, 183, pl. VII, f. 3.—Wawawai, Wash.
- distans* OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 211; Mon. N. A. Dipt., IV, 67.—Fla.
- diversa* OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 212; Mon. N. A. Dipt., IV, 64.—D. C.
- duplicata* DOANE, Jour. N. Y. Ent. Soc., VIII, 185, pl. VII, f. 12.—Tokeland, Wash.
- floridana* OSTEN SACKEN, Mon. N. A. Dipt., IV, 67.—Fla.
- fulva* DOANE, Jour. N. Y. Ent. Soc., VIII, 185, pl. VII, f. 9.—Pullman, Wash.
- gladiator* OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 212; Mon. N. A. Dipt., IV, 63, pl. III, f. 4.—D. C.
- globithorax* OSTEN SACKEN, Mon. N. A. Dipt., IV, 74.—White Mts., N. H.; D. C.
- gracilis* DOANE, Jour. N. Y. Ent. Soc., VIII, 184, pl. VII, f. 1.—Moscow, Ida.
- ✓ *hæretica* OSTEN SACKEN, Mon. N. A. Dipt., IV, 70, pl. I, f. 3.—N. Y.; Ft. Resolution, Huds. Bay Terr.
- N. J.—Smith Cat.; White Mts., N. H.—Slosson.
- halterata* OSTEN SACKEN, Mon. N. A. Dipt., IV, 71.—Labrador.
- BERGROTH, Wien. Ent. Zeit., VII, 194, oc. at Sitka, and note on male. Alaska.—Coq.; Beulah, N. M.—Skinner.
- helva* DOANE, Jour. N. Y. Ent. Soc., VIII, 183, pl. VII, f. 4.—Col.
- immodesta* OSTEN SACKEN, Proc. Acad. Sci. Phil., 1859, 211; Mon. N. A. Dipt., IV, 62.—D. C., N. Y., Me.
- infuscata* DOANE, Jour. N. Y. Ent. Soc., VIII, 185, pl. VII, f. 11.—Collins, Ida.
- COQUILLET, Proc. Wash. Acad. Sci., II, 398, oc. in Alaska.
- isabellina* DOANE, Jour. N. Y. Ent. Soc., VIII, 183, pl. VII, f. 5.—Pa.
- liberta* OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 209; Mon. N. A. Dipt., IV, 69, pl. III, f. 3.—Ala., Ga.; N. Y., D. C., Wis. Cat. gives Canada. N. J.—Smith Cat.
- longipennis* SCHUMMEL, Beitr. zur Ent., I, 104 (*Limnobia*).—Europe.
- OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1861, 287 (*immemor*); Mon. N. A. Dipt., IV, 61, pl. I, f. 1.—N. Y. Cat. gives Mass. and Quebec.
- marmorata* OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1861, 288; Mon. N. A. Dipt., IV, 77.—Cal. West. Dipt., 197, note.
- moniliformis* DOANE, Jour. N. Y. Ent. Soc., VIII, 184, pl. VII, f. 8.—Col., Long Id., Nantucket.
- morioides* OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 212 (*morio*, preoc.); Mon. N. A. Dipt., IV, 73.—Trenton Falls, N. Y.
- N. J.—Smith Cat.
- ochracea* DOANE, Jour. N. Y. Ent. Soc., VIII, 182, pl. VII, f. 1.—Moscow, Ida.
- pubipennis* OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 211; Mon. N. A. Dipt., IV, 73, pl. I, f. 2.—D. C. Cat. gives N. Y.
- VERRALL, Ent. Mo. Mag., XXIII, 158, says this is the same as the European *pilipennis* EGGER.
- OSTEN SACKEN, Berl. Ent. Zeitsch., XXXIX, 254, should be compared with the European species before dropping name.
- N. J.—Smith Cat.
- pudica* OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 212; Mon. N. A. Dipt., IV, 64.—Ill.
- White Mts., N. H.—Slosson.
- rara* OSTEN SACKEN, Mon. N. A. Dipt., IV, 75.—N. Y.
- N. J.—Smith Cat.
- rostrifera* OSTEN SACKEN, Mon. N. A. Dipt., IV, 65.—N. Y.
- simulans* WALKER, List, I, 45 (*Limnobia*).—Martin Falls, Canada.

- OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 213 (*defuncta*); Mon. N. A. Dipt., iv, 76 (id.); Cat. 24, and note 26. [Synonymy Mon., iv, 41.]—D. C., N. Y., Me., Canada. Cat. adds Cal.
 N. J.—Smith Cat. Beulah, N. M.—Skinner.
stigmata DOANE, Jour. N. Y. Ent. Soc., viii, 185, pl. vii, f. 10.—Palo Alto, Cal.
stulta OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 210; Mon. N. A. Dipt., iv, 68.—Trenton Falls, N. Y.; Canada.
 N. J.—Smith Cat.
venusta BERGROTH, Wien. Ent. Zeit., vii, 193.—Sitka.
 Yakutat, Alaska.—Coq.
vulgata BERGROTH, Wien. Ent. Zeit., vii, 194.—Sitka.

LIMNOBIA.

- MEIGEN, Syst. Besch., i, 116, 1818.
 OSTEN SACKEN, Mon. N. A. Dipt., iv, 84, 1869; Stud. Tipul., ii, 177, 1887.
borealis DOANE, Jour. N. Y. Ent. Soc., viii, 187, pl. vii, f. 15 (*Dicranoptycha*; corrected by Doane *in litt.*).—Unalaska, Alaska.
californica OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1861, 288; Mon. N. A. Dipt., iv, 96.—Cal.
cinctipes SAY, Jour. Acad. Sci. Phil., 1859, 214; Compl. Works, ii, 47.—Mo.
 WIEDEMANN, Auss. Zw., i, 32.
 OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 214; Mon. N. A. Dipt., iv, 88.—Mass., D. C., Ill.
 N. J.—Smith Cat.; Montreal.—Chagnon; Chatham, Mich.—Pettit; Wash.—Will., K. U. Quart., ii, 61.
concinna WILLISTON, K. U. Quart., ii, 60.—Wash.
hudsonica OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1861, 289; Osten Sacken, Mon. N. A. Dipt., iv, 91.—Great Slave Lake, Hudson's Bay Terr.
ignobilis WALKER, Dipt. Saund., 437.—N. A.
 OSTEN SACKEN, Mon. N. A. Dipt., iv, 41, 327; Cat., 33, notes; desc. unrecognizable.
immatura OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 214; Mon. N. A. Dipt., iv, 89.—D. C., Wis., Me.
 N. J.—Smith Cat.
indigena OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 215; Mon. N. A. Dipt., iv, 94, pl. iii, f. 7.—Maine; Upper Wis. R.; D. C.; N. Y. Cat. gives Col. and Canada.
insularis WILLISTON, Trans. Ent. Soc. Lond., 1896, 287, pl. x, f. 58.—St. Vincent, W. I.
livida SAY, Jour. Acad. Sci. Phil., vi, 151; Compl. Works, ii, 349.—Mex.
modesta MEIGEN, Syst. Besch., i, 134.—Europe.
 SCHUMMEL, Beitr. zur Ent., i, 124.
 STAEGER, Kröyer's Tidsskr., iii, 51 (*Glochina autumnalis*).
 SCHINER, Fauna Austr., ii, 570.
 LUNDBECK, Dipt. Groenl., i, 269, oc. in Greenland; ii, 313, note.
parietina OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1861, 289; Mon. N. A. Dipt., iv, 93.—Trenton Falls, N. Y. Cat. gives White Mts., N. H.
sciophila OSTEN SACKEN, West. Dipt., 197.—Marin and Sonoma Cos., Cal.
 COQUILLETT, Proc. Wash. Acad. Sci., ii, 398, oc. in Alaska and Col.
 HOWARD, Proc. Wash. Acad. Sci., ii, 559, note on habits.
sociabilis OSTEN SACKEN, Mon. N. A. Dipt., iv, 95.—Ill.
 N. J.—Smith Cat.

- solitaria** OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 215; Mon. N. A. Dipt., iv, 90, pl. III, f. 6.—N. Y.; White Mts., N. H.; Me.; N. W. part of Huds. Bay Terr.
- stupens** WALKER, Trans. Ent. Soc., v, 333.—Mex.
O. S. Cat., 33, note on position.
- triocellata** OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 216; Mon. N. A. Dipt., iv, 92.—D. C.; Trenton Falls, N. Y.; Upper Wis. R.
N. J.—Smith Cat.; Beulah, N. M.—Skinner.
- tripunctata** FABRICIUS, Spec. Ins., II, 405; Ent. Syst., iv, 241; Syst. Antl., 31 (all *Tipula*).—Europe.
GMELIN, Syst. Nat., v, 2817 (*Tipula*).
MEIGEN, Syst. Besch., I, 138.
SCHINER, Fauna Austr., II, 568.
BERGROTH, Wiener Ent. Zeit., VII, 239, oc. in British Columbia (*Limonia*).
- tristigma** OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 216; Mon. N. A. Dipt., iv, 94.—Ill., near Chicago.
N. J.—Smith Cat.
- turpis** WALKER, Dipt. Saund., 434.—Canada.
OSTEN SACKEN, Mon. N. A. Dipt., iv, 41, 327; Cat. 33: original is unrecognizable, erroneous, and preoccupied!

TOXORHINA.

- LOEW, Linnæa Ent., v, 400, 1851.
OSTEN SACKEN, Mon. N. A. Dipt., iv, 109, 1869.
- fragilis** LOEW, Linn. Ent., v, 401, pl. II, f. 16.—18.—Porto Rico. Also reported from Porto Rico by Roeder.
- magna** OSTEN SACKEN, Proc. Phil. Ent. Soc., 1865, 232; Mon. N. A. Dipt., iv, 114.—N. J.
- muliebris** OSTEN SACKEN, Proc. Ent. Soc. Phil., 1865, 233; Mon. N. A. Dipt., iv, 115; III, App.—Princeton, Mass. Cat. adds N. Y.

RHAMPHIDIA.

- MEIGEN, Syst. Besch., VI, 281, 1830.
ST. FARGEAU, Encycl. Méth., x, 585, 1825 (*Leptorhina*); index, 831 (*Megarhina*).
STEPHENS, Cat., II, 243, 1829 (*Leptorhina*).
SCHINER, Fauna Austr., II, 558, 1864.
OSTEN SACKEN, Mon. N. A. Dipt., iv, 103, 1869; Stud. Tipul., II, 183, 1887, notes.
- albitarsis** OSTEN SACKEN, Berl. Ent. Zeitsch., XXXI, 184, 1887.—Porto Rico.
WILLISTON, Dipt. St. Vincent, 288, pl. x, f. 59, oc. in St. Vincent.
- flavipes** MACQUART, Dipt. Exot., Suppl., v, 17, pl. I, f. 4.—Baltimore.
WALKER, Dipt. Saund., 435 (*prominens*).—U. S. [O. S.]
OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 222, 1859 (*brevirostris*); Mon. N. Dipt., iv, 105.—D. C.; N. Y.; White Mts., N. H.; Wis.; Ill.; S. C.
N. J.—Smith Cat.

ELEPHANTOMYIA.

- OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 220, 1859; Mon. N. A. Dipt., iv, 106, 1869; Stud. Tipul., II, 184, 1887, notes.
- longirostris** WILLISTON, Trans. Ent. Soc. Lond., 1896, 288.—St. Vincent, W. I.

westwoodi OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 221 (*Limnobia rhynchus canadensis* WESTWOOD, mistaken reference); Mon. N. A. Dipt., iv, 109, pl. I, f. 5 and III, 8.—Trenton Falls, N. Y. Cat. gives "Quebec to Fla."

DIOTREPHA.

OSTEN SACKEN, Cat., 1878, 220.

WILLISTON, Trans. Ent. Soc. Lond., 1896, 291.

mirabilis OSTEN SACKEN, Cat., 220.—Ga., Tex., Cuba?

? WILLISTON, Trans. Ent. Soc. Lond., 1896, 291, pl. x, f. 65, doubtfully identified from St. Vincent, W. I.

ELLIPTERA.

SCHINER, Wien. Ent. Monatsch., VII, 222, 1863; Fauna Austr., II, 559, 1864.

OSTEN SACKEN, Mon. N. A. Dipt., VI, 123, 1869.

MIK, Wien. Ent. Zeit., v, 337, pl. VI, full desc. of early stages of a European species; larva in running water.

clausa OSTEN SACKEN, West. Dipt., 197.—Yosemite Valley, Cal.

ORIMARGA.

OSTEN SACKEN, Mon. N. A. Dipt., IV, 122, 1869.

arizonensis COQUILLETT, Proc. U. S. N. M., XXV, 83.—Yavapai Co., Arizona.

ATARBA.

OSTEN SACKEN, Mon. N. A. Dipt., IV, 127, 1869.

picticornis OSTEN SACKEN, Mon. N. A. Dipt., IV, 128, pl. I, f. 13.—Del.; D. C.? Cat. gives D. C. and Trenton Falls, N. Y.

N. J.—Smith Cat.

pleuralis WILLISTON, Trans. Ent. Soc. Lond., 1896, 289, pl. x, f. 61.—St. Vincent, W. I.

COQUILLETT, Proc. U. S. N. M., XXII, oc. in Porto Rico.

puella WILLISTON, Trans. Ent. Soc. Lond., 1896, 288, pl. x, f. 60.—St. Vincent, W. I.

DICRANOPTYCHA.

OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 217; Mon. N. A. Dipt., IV, 116, 1869.

borealis DOANE, see *Limnobia*.

germana OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 217; Mon. N. A. Dipt., IV, 117.—Trenton Falls, N. Y.

N. J.—Smith Cat.

nigripes OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 218; Mon. N. A. Dipt., IV, 119, pl. III, f. 11.—Dalton, Ga.

sobrina OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 218 (*sobrina* and *sororcula*); Mon. N. A. Dipt., IV, 118, pl. I, f. 8 and III, 12.—D. C.

TEUCHOLABIS.

OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 222; Mon. N. A. Dipt., IV, 129, 1869.

annulata WILLISTON, Trans. Ent. Soc. Lond., 1896, 290, pl. x, f. 63.—St. Vincent, W. I.

WILLISTON, Biologia, Dipt., Suppl., 225, oc. in Tabasco, Mex., and note.

- chalybeiventris** LOEW, Wien. Ent. Monatschr., 1861, 33 (*Rhamphidia*).—Cuba.
OSTEN SACKEN, Mon. N. A. Dipt., iv, 132, note.
WILLISTON, Biologia, Dipt., Suppl., 226, oc. in Morelos, Mex.
- complexa** OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 223; Mon. N. A. Dipt., iv, 132.—D. C.; Trenton Falls, N. Y.; Ill.; Ga.?
JOHNSON, Ent. News, xi, 324, reared from larvæ under bark of decayed oak tree in N. J.
WILLISTON, Trans. Ent. Soc. Lond., 1896, 289, pl. x, f. 62, oc. in St. Vincent, W. I.
- gracilis** OSTEN SACKEN, Biologia, Dipt., i, 7.—Orizaba, Mex.
- molesta** OSTEN SACKEN, Biologia, Dipt., i, 6.—Orizaba, Mex.; may be the same as *Limnobia morionella* SCHINER, Novara, 47, from S. A., which is a *Teucholabis*.—O. S.

ANTOCHA.

- OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 219; Mon. N. A. Dipt., iv, 125, 1869; Stud. Tipul., ii, 187, 1887, notes; Berl. Ent. Zeitsch., xxxvi, 407, 1891.
SCHINER, Fauna Austr., ii, 558, 1864.
MIK, Wien. Ent. Zeit., 1883, 198 (*Orimargula*) [O. S.].
- opalizans** OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 220 (*opalizans* and *saxicola*); Mon. N. A. Dipt., iv, 126, pl. i, f. 11, and iii, f. 10.—Dalton, Ga.; D. C.; N. Y.; Montreal; Ill.; Huds. Bay Terr.; Europe.
?MEIGEN, Syst. Besch., vi, 279 (*Limnobia vitripennis*) [O. S., Stud. Tipul., with a doubt].
N. J.—Smith Cat.

CLADURA.

- OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 229; Mon. N. A. Dipt., iv, 187, 1869.
- flavoferruginea** OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 229; Mon. N. A. Dipt., iv, 188, pl. iv, f. 22.—D. C.
- indivisa** OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1861, 291; Mon. N. A. Dipt., iv, 189 (and wing, p. 34).—Trenton Falls, N. Y.; Mass.

CRYPTOLABIS.

- OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 224, 1859; Mon. N. A. Dipt., iv, 185, 1869.
- bisinuata** DOANE, Jour. N. Y. Ent. Soc., viii, 189, pl. vii, f. 22.—Spokane, Wash.
- paradoxa** OSTEN SACKEN, Proc. Acad. Nat. Sci., 1859, 225; Mon. N. A. Dipt., iv, 186, pl. ii, f. 11 and iii, f. 13.—White Sulphur Spr., Va.

RHYPHLOPHUS.

- KOLENATI, Wien. Ent. Monatschr., iv, 393, 1860.
SCHINER, Wien. Ent. Monatschr., vii, 221, 1863 (*Dasyptera*); Fauna Austr., ii, 536, 537, 1864 (*Rhypholophus* and *Dasyptera*).
OSTEN SACKEN, Mon. N. A. Dipt., iv, 141, 1869; Stud. Tipul., ii, 192, 1887.
- affinis** LUNDBECK, Dipt. Groenl., i, 266.—Greenland.
COQUILLET, Proc. Wash. Acad. Sci., ii, 398, oc. in Alaska.
- cockerelli** COQUILLET, Psyche, Jan., 1901, 149.—N. M., high altitude.
- fascipennis** ZETTERSTEDT, Dipt. Scand., x, 3777 (*Erioptera*).—N. Norway and Greenland.
STAEGER, Groenl. Antliater, 355, oc. in Greenland.

- OSTEN SACKEN, Mon. N. A. Dipt., iv, App. 1, 328, quotes Zetterstedt;
Stud. Tipul., ii, 192, note.
- flaveolus* COQUILLETT, Proc. Wash. Acad. Sci., ii, 398.—Orca, Alaska.
- fumatus* DOANE, Jour. N. Y. Ent. Soc., viii, 188, pl. vii, f. 19.—Collins, Ida.
- fusiformis* DOANE, Jour. N. Y. Ent. Soc., viii, 187, pl. vii, f. 16.—Collins, Ida.
- holotrichus* OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 227 (*Erioptera*);
Mon. N. A. Dipt., iv, 143.—D. C.; Cat. adds N. Y.
- innocens* OSTEN SACKEN, Mon. N. A. Dipt., iv, 142.—D. C., N. J.
- lanuginosus* DOANE, Jour. N. Y. Ent. Soc., viii, 188, pl. vii, f. 18.—Collins, Ida.
- manicatus* DOANE, Jour. N. Y. Ent. Soc., viii, 187, pl. vii, f. 17.—Collins, Ida.
- meigenii* OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 226 (*Erioptera*); Mon.
N. A. Dipt., iv, 144.—Middle States; Cat. gives U. S. and Canada.
- monticola* OSTEN SACKEN, Mon. N. A. Dipt., iv, 145.—White Mts., N. H.
- nigripilus* OSTEN SACKEN, Mon. N. A. Dipt., iv, 142.—D. C.
- nubilus* OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 227 (*Erioptera*);
Mon. N. A. Dipt., iv, 141, pl. i, f. 14.—D. C., N. Y.
- rubellus* OSTEN SACKEN, Mon. N. A. Dipt., iv, 144, pl. i, f. 15.—West Point, N.
Y.; Del.

SIGMATOMERA.

- OSTEN SACKEN, Mon. N. A. Dipt., iv, 137, 1869; Stud. Tipul., ii, 205, 1887.
- flavipennis* OSTEN SACKEN, Mon. N. A. Dipt., iii, App.—Mex.

ERIOPTERA.

- MEIGEN, Illig. Mag., ii, 262, 1803; Syst. Besch., i, 108, 1818.
- SCHINER, Fauna Austr., ii, 541, 1864.
- OSTEN SACKEN, Mon. N. A. Dipt., iv, 146, 1869; Stud. Tipul., ii, 193, 1887,
notes on subgenera, etc.
- MIK, Wien. Ent. Zeit., xvii, 62, 1898, notes on larvæ.
- annulipes* WILLISTON, Trans. Ent. Soc. Lond., 1896, 294.—St. Vincent, W. I.
- armata* OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 227; Mon. N. A. Dipt.,
iv, 160, pl. i, f. 18 and iv, f. 14.—D. C., Ill., N. Y., Wis. Cat. gives
Atlantic St. and Quebec.
- N. J.—Smith Cat.; White Mts., N. H.—Slosson.
- armillaris* OSTEN SACKEN, Mon. N. A. Dipt., iv, 158.—Trenton Falls, N. Y.; D.
C.; Cat. gives Quebec.
- bipartita* OSTEN SACKEN, West. Dipt., 199; Stud. Tipul., ii, 193, refers to subg.
Acyphona.—San Francisco, Cal.
- caloptera* SAY, Jour. Acad. Sci. Phil., iii, 17; Compl. Works, ii, 44 (*caliptera*).
—Mo.
- WIEDEMANN, AUSS. Zw., i, 23 (*caloptera*).
- OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 226; Mon. N. A. Dipt.,
iv, 161, pl. iv, f. 15.—U. S., common; west to Col.; Quebec; Cuba.
- St. Vincent, W. I.—Will.
- chlorophylla* OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 226; Mon. N. A.
Dipt., iv, 157, pl. i, f. 16.—Middle States. Cat. gives Quebec.
- N. J.—Smith Cat.; White Mts., N. H.—Slosson.
- chrysocoma* OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 226; Mon. N. A.
Dipt., iv, 156.—D. C., and farther north; Cat. gives Atl. St. and Quebec.
- White Mts., N. H.—Slosson.
- dulcis* OSTEN SACKEN, West. Dipt., 198.—Sierra Nevadas, Cal.
- graphica* OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 227; Mon. N. A.
Dipt., iv, 159.—D. C.
- Ill.—Hart.

- parva** OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 227; Mon. N. A. Dipt., iv, 162.—D. C., N. J.
- septemtrionalis** OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 226; Mon. N. A. Dipt., iv, 155.—Me., N. Y., D. C.
N. J.—Smith Cat. Beulah, N. M.—Skinner.
- straminea** OSTEN SACKEN, Mon. N. A. Dipt., iv, 157.—No locality; Cat. gives Middle States.
N. J.—Smith Cat.
- venusta** OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 227; Mon. N. A. Dipt., iv, 158, pl. i, f. 17 and iv, f. 16.—Middle States, common.
- vespertina** OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 226; Mon. N. A. Dipt., iv, 157, pl. iv, f. 20.—D. C., Fla., Wis. Cat. gives Quebec.
N. J.—Smith Cat.
- villosa** OSTEN SACKEN, Proc. Acad. Nat. Sci., 1859, 229; Mon. N. A. Dipt., iv, 155.—Middle States.

MOLOPHILUS.

- CURTIS, Brit. Ent., 444, 1833.
- OSTEN SACKEN, Mon. N. A. Dipt., iv, 1869, 153; Stud. Tipul., ii, 193, 1887.
- colonus** BERGROTH, Wien. Ent. Zeit., vii, 195.—Sitka.
Alaska—Coq. Beulah, N. M.—Skinner.
- comatus** DOANE, Jour. N. Y. Ent. Soc., viii, 188, pl. vii, f. 20 (*Erioptera*).—Pullman and Seattle, Wash.
- falcatus** BERGROTH, Wien. Ent. Zeit., vii, 196.—Sitka.
Alaska—Coq.
- forcipula** OSTEN SACKEN, Mon. N. A. Dipt., iv, 163; West. Dipt., 200, oc. in Cal., with a doubt.—South Orange, N. J.
- hirtipennis** OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 228; Mon. N. A. Dipt., iv, 163.—N. J., D. C., Md.
Beulah, N. M.—Skinner.
- paulus** BERGROTH, Wien. Ent. Zeit., vii, 196.—Sitka.
Alaska—Coq.
- pubipennis** OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 228; Mon. N. A. Dipt., iv, 162.—D. C.
N. J.—Smith Cat.
- ursinus** OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 228; Mon. N. A. Dipt., iv, 164; West. Dipt., 200, note.—D. C., Md.
N. J.—Smith Cat.

GONIOMYIA.

- OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 229; Mon. N. A. Dipt., iv, 176, 1869, and iii, 1873, Appendix; Stud. Tipul., ii, 200, 1887.
- SCHINER, Fauna Austr., ii, 542, 1864 (inclusive of *Empeda*).
- BELING, Verh. Zool.-Bot. Ges., 1866, 145, desc. of larva and pupa of European sp.; loc. cit., 1878, reports finding larva in sand of half-dried brook. [O. S.]
- blanda** OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 231; Mon. N. A. Dipt., iv, 182, pl. iv, f. 17.—D. C., N. Y., S. C.
N. J.—Smith Cat.
- caudata** LUNDBECK, Dipt. Groenl., i, 267.—Greenland.
- cognatella** OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 230; Mon. N. A. Dipt., iv, 181, pl. iv, f. 18.—D. C.
N. J.—Smith Cat.
- galactoptera** BERGROTH, Wien. Ent. Zeit., vii, 196.—Sitka.

- manca* OSTEN SACKEN, Mon. N. A. Dipt., iv, 178.—N. J.
subcinerea OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 231; Mon. N. A. Dipt., iv, 181, pl. II, f. 4.—Trenton Falls, N. Y.; D. C. Cat. gives Quebec.
sulphurella OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 230; Mon. N. A. Dipt., iv, 180, pl. II, f. 2.—D. C.; Trenton Falls, N. Y. Cat. gives Quebec. N. J.—Smith Cat.
virgata DOANE, Jour. N. Y. Ent. Soc., VIII, 189, pl. VII, f. 21.—Tokeland, Wash.

EMPEDA.

- OSTEN SACKEN, Mon. N. A. Dipt., iv, 183, 1869.
stigmatica OSTEN SACKEN, Mon. N. A. Dipt., iv, 184.—Trenton Falls, N. Y.

MONGOMA.

- WESTWOOD, Trans. Ent. Soc. Lond., 1881, 364.
 WILLISTON, Ent. News, VII, 185, 1896, reports the genus from N. A.; Trans. Ent. Soc. Lond., 1896, 291.
manca WILLISTON, Trans. Ent. Soc. Lond., 1896, 293.—St. Vincent, W. I.
pallida WILLISTON, loc. cit., and pl. x, f. 67.—St. Vincent, W. I.

PARATROPESA.

- SCHINER, Verh. Zool.-Bot. Ges., XVI, 932, 1866; Novara, 44, 1868.
præusta OSTEN SACKEN, Biologia, Dipt., I, 8.—Jalapa and Orizaba, Mex.

HELOBIA.

- ST. FARGEAU, Encycl. Méth., x, 585, 1825.
 MEIGEN, Syst. Besch., VI, 282, 1830 (*Symplecta*).
 SCHINER, Fauna Austr., II, 545, 1864 (id.).
 PHILIPPI, Verh. Zool.-Bot. Ges., 1865, 615 (*Idioneura*).
 OSTEN SACKEN, Mon. N. A. Dipt., iv, 170, 1869 (*Symplecta*); Stud. Tipul., II, 197, 1887, notes.
 MIK, Wien. Ent. Zeit., 1886, 318 (*Symplectomorpha*) [O. S.].
punctipennis MEIGEN, Syst. Besch., I, 147 (*Limnobia*); VI, 283 (*Symplecta*); Klassif., 57, 1804 (*Limonia hybrida*).—Europe.
 MACQUART, Hist. Nat. Dipt., I, 109.
 STAEGE, Dipt. Dan., 39, 1840 (*Symplecta*).
 SCHINER, Fauna Austr., II, 543 (id.).
 WALKER, List, I, 48 (*Limnobia cana*).—Martin Falls, Canada. [O. S.]
 OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 228; Mon. N. A. Dipt., iv, 171, pl. I, f. 20, and iv, f. 21 (*Symplecta*).—N. A. generally; D. C., Ala., N. Y., Canada, Ill.
 HART, Bull. Ill. State Lab. N. H., IV, 199, desc. and figs. of larva, which lives in sand of river bank.
 COQUILLET, Proc. Wash. Acad. Sci., II, 399, oc. in Alaska.
 Common in Idaho and Washington.—J. M. A.
Note.—I have not seen the description of *hybrida*, and Meigen himself abandoned it. There may be some reason, unknown to me, for not restoring it as the first name of the species.

CHIONEAE.

- DALMAN, Kongl. Vetensk. Ak. Handl., 1816, 102, pl. II, f. 2.
 OSTEN SACKEN, Mon. N. A. Dipt., iv, 168, 1869; Stud. Tipul., II, 106.

SCHINER, Fauna Austr., II, 573, 1864.

nivicola DOANE, Jour. N. Y. Ent. Soc., VIII, 185.—Pullman, Wash., on snow.

scita WALKER, List, I, 82.—N. A.

valga HARRIS, Ins. Inj. Veg., 3d ed., 601, f. 260.—Mass.

WALKER, List, I, 82 (*aspersa*).—Martin Falls, Can. [O. S.].

LUGGER, 2d. Rept. Ent. Minn., 1896, 230, pl. XVI, notes on habits; figures both sexes; oc. in Minn.

TRIMICRA.

OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 290, 1861; Mon. N. A. Dipt., IV, 165, 1869.

VAN DER WULP, Ann. Soc. Ent. Belg., XXXVII, 1893, 499, notes on, and fig. of an abnormal specimen without discal cell.

anomala OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1861, 290; Mon. N. A. Dipt., IV, 167, pl. II, f. 1; West. Dipt., 200, note.—D. C.; New Rochelle, N. Y.; Newport, R. I. Also in Cal. and Oaxaca, Mex.—O. S. N. J.—Smith Cat.

GNOPHOMYIA.

OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 223; Mon. N. A. Dipt., IV, 172, 1869; Stud. Tipul., II, 198, 1887.

SCHINER, Fauna Austr., II, 535, 1864.

ferruginea WILLISTON, Biologia, Dipt., Suppl., 226.—Tabasco, Mex.

luctuosa OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 224; Mon. N. A. Dipt., IV, 174.—Fla.

WALKER, Trans. Ent. Soc. Lond., v, pt. 7, 66 (*Limnobia nigricola*).—U. S. [O. S.].

tristissima OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 224; Mon. N. A. Dipt., IV, 175, pl. II, f. 5 and IV, f. 19.—D. C., N. Y., Va., Upper Wis. R. Cat. gives Atlantic States and Canada. N. J.—Smith Cat.; White Mts., N. H.—Slosson.

POLYMERA.

WIEDEMANN, Dipt. Exot., 40, 1821; Auss. Zw., I, 57, 1828.

OSTEN SACKEN, Mon. N. A. Dipt., IV, 335, 1869 and III, Appendix, 1873; Stud. Tipul., II, 215, 1887.

WILLISTON, Ent. News, VII, 185, 1896, reports the genus from N. A.

albitarsis WILLISTON, Trans. Ent. Soc. Lond., 1896, 296, pl. x, f. 71.—St. Vincent, W. I.

PHYLLOLABIS.

OSTEN SACKEN, West. Dipt., 202, 1877; Stud. Tipul., II, 216, 1887.

claviger OSTEN SACKEN, West. Dipt., 203.—San Bernardino, Cal.

encausta OSTEN SACKEN, West. Dipt., 204.—Marin Co. and San Mateo, Cal.

obscura DOANE, Jour. N. Y. Ent. Soc., VIII, 192, pl. VIII, f. 7.—Pullman, Wash.

ULOMORPHA.

OSTEN SACKEN, Mon. N. A. Dipt., IV, 232, 1869.

pilosella OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 342 (*Limnophila*); Mon. N. A. Dipt., IV, 233.—Trenton Falls, N. Y.

ALDRICH, 21st Rept. Geol. Ind., 1898, 188.—Oc. in cavern in Ind. N. J.—Smith Cat.

TRICHOCERA.

- MEIGEN, Illig. Mag., II, 262, 1803; Syst. Besch., I, 211, 1818.
 SCHINER, Fauna Austr., II, 546, 1864.
 OSTEN SACKEN, Mon. N. A. Dipt., IV, 233; Stud. Tipul., II, 217, 1887, notes on habits, etc.
- annulata** MEIGEN, Syst. Besch., I, 215.—Europe.
 SCHINER, Fauna Austr., II, 548.
 BERGROTH, Wien. Ent. Zeit., VII, 197, oc. in Sitka.
- bimacula** WALKER, List, I, 84.—Nova Scotia.
 OSTEN SACKEN, Mon. N. A. Dipt., IV, 236, 325, desc. quoted.
- brumalis** FITCH, Winter Insects, etc.; Amer. Quart. Jour. Ag. and Sci., V, 274; reprinted in Lintner's 2d N. Y. Rept., 243, Appendix.—N. Y.
 OSTEN SACKEN, Mon. N. A. Dipt., IV, 237, 323, desc. quoted.
- gracilis** WALKER, List, I, 84.—New York Factory, Huds. Bay Terr.
 OSTEN SACKEN, Mon. N. A. Dipt., IV, 325, quotes desc.
 White Mts., N. H.—Slosson; in spite of this identification, I consider the description quite unrecognizable.
- hiemalis** DEGEER, Ins., VI, 360, pl. XXI, f. 1, 2, 5 (*Tipula*).—Europe.
 LATREILLE, Gen. Crust. et Ins., IV, 258 (id.).
 MEIGEN, Syst. Besch., I, 213.
 MACQUART, Hist. Nat. Dipt., I, 114, pl. II, f. 16.
 SCHINER, Fauna Austr., II, 548.
 ZETTERSTEDT, Dipt. Scand., X, 4041.—N. Europe and Greenland.
 HOLMGREN, Ins. Nordgroenl., oc. Greenland.
 British Col. (High Cascades)—Bergroth.
- maculipennis** FABRICIUS, Ent. Syst., IV, 240; Syst. Antl., 30 (both *Tipula cinerea*).—Europe.
 MEIGEN, Klassif., 149 (*Limnobia cinerica*); Syst. Besch., I, 214.
 ZETTERSTEDT, Ins. Lapp., 853 (oc. in Greenland); Dipt. Scand., X, 4046.
 SCHINER, Fauna Austr., II, 547.
 STAEGE, Groenl. Antl., 1845, 356, oc. in Greenland.
 N. J.—Smith Cat.; Montreal—Chagnon.
- regelationis** LINNÉ, Fauna Suec., 1754 (*Tipula*).—Europe.
 FABRICIUS, Spec. Ins., II, 405; Ent. Syst., IV, 242; Syst. Antl., 32 (all *Tipula*).
 GMELIN, Syst. Nat., V, 2817 (id.).
 O. FABRICIUS, Fauna Groenl., 202 (id.), oc. in Greenland.
 SCHRANK, Austr. Spec., 873 (id.).
 MEIGEN, Syst. Besch., I, 214.
 SCHINER, Fauna Austr., II, 547.
 BERGROTH, Wien. Ent. Zeit., VII, 239, oc. in Brit. Col. N. A.
- scutellata** SAY, Long's Exped., App., 360; Compl. Works, I, 244.—"Falls of Kakabikka, beyond Lake Superior."
 WIEDEMANN, Auss. Zw., I, 60.
 OSTEN SACKEN, Mon. N. A. Dipt., IV, 322, quotes orig. desc.
- trichoptera** OSTEN SACKEN, West. Dipt., 204.—Marin Co., Cal. See also Psyche, April, 1895, 230, note.

EPIPHRAGMA.

- OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 238; Mon. N. A. Dipt., IV, 193, 1869; Stud. Tipul., II, 208, 1887, notes.
 SCHINER, Fauna Austr., II, 550, 1864.
- circinata** OSTEN SACKEN, Biologia, Dipt., I, 9.—Costa Rica.

fascipennis SAY, Jour. Acad. Sci. Phil., III, 19; Compl. Works, II, 45 (*Limnobia*).—U. S.

WIEDEMANN, AUSS. ZW., I, 31 (id.).

OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 239 (*pavonina*); Mon. N. A. Dipt., IV, 194.—Ga. Me., White Mts., N. H., D. C., Ill. Cat. gives Quebec. N. J.—Smith Cat.; Montreal—Chagnon.

NEEDHAM, Bull. 68, N. Y. State Mus., 281, pl. VIII and IX, larva and pupa.—Lake Forest, Ill.

? **nebulosa** BELLARDI, Saggio, I, 206, pl. I, f. 4 (*Tipula*).—Mex.

OSTEN SACKEN, Biologia, Dipt., I, 19, "seems to be allied to *Epiphragma*."

picta FABRICIUS, Ent. Syst., Suppl., 550 (*Tipula*); Syst. Antl., 29 (id.).—Europe. MEIGEN, Klassif., 60 (*Limonia*); Syst. Besch., I, 123 (*Limnobia*).

CURTIS, Brit. Ent., 50 (*Limnobia ocellaris*).

SCHINER, Fauna Austr., II, 551.

BERGROTH, Wien. Ent. Zeit., VII, 239, oc. in Brit. Col., N. A.

sackeni WILLISTON, Trans. Ent. Soc. Lond., 1896, 294, pl. x, f. 68.—St. Vincent, W. I.

solatrix OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 238; Mon. N. A. Dipt., IV, 195, pl. II, f. 8.—D. C.; perhaps also Brazil.

LIMNOPHILA.

MACQUART, Hist. Nat. Dipt., I, 95, 1834.

OSTEN SACKEN, Acad. Nat. Sci. Phil., 1859, 231; Mon. N. A. Dipt., IV, 196, 1869; Stud. Tipul., II, 209, 1887, notes.

adusta OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 235; Mon. N. A. Dipt., IV, 215.—Maine to Ga. and Wis. Cat. gives Quebec. N. J.—Smith Cat.; White Mts., N. H.—Slosson.

aprilina OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 235; Mon. N. A. Dipt., IV, 223, pl. IV, f. 23.—D. C.; White Mts., N. H.

areolata OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 237; Mon. N. A. Dipt., IV, 214.—Trenton Falls, N. Y.; Md.; D. C.

White Mts., N. H.—Slosson.

badia DOANE, Jour. N. Y. Ent. Soc., VIII, 191, pl. VIII, f. 5.—Olympia, Wash.

brevifurca OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 237; Mon. N. A. Dipt., IV, 221.—D. C. Cat. gives Quebec.

contempta OSTEN SACKEN, Mon. N. A. Dipt., IV, 218.—Middle States.

carbonaria MACQUART, Dipt. Exot., I, I, 66.—Carolina.

OSTEN SACKEN, Mon. N. A. Dipt., IV, 323, quotes orig. desc.

costata COQUILLET, Psyche, Jan., 1901, 149.—N. M., high altitude.

cubitalis OSTEN SACKEN, Mon. N. A. Dipt., IV, 229.—Va., Ohio.

damula OSTEN SACKEN, West. Dipt., 201.—San Bernardino, Cal.

fasciolata OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 234 (*fasciata* Schum.); Mon. N. A. Dipt., IV, 206.—Mass.

flavipilus DOANE, Jour. N. Y. Ent. Soc., VIII, 190; pl. VIII, f. 1.—Pullman, Wash.

fratria OSTEN SACKEN, Mon. N. A. Dipt., IV, 220.—Either N. Y. or N. H.

fulvocostalis COQUILLET, Dipt. of Commander Ids., 342.—Bering Id.

fuscovaria OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 240; Mon. N. A. Dipt., IV, 225.—D. C., and north to Quebec.

N. J.—Smith Cat.

gracilis WIEDEMANN, AUSS. ZW., I, 28 (*Limnobia*).—Pa.

OSTEN SACKEN, Mon. N. A. Dipt. IV, 322, quotes orig. desc.

- imbecilla* OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 237; Mon. N. A. Dipt., iv, 213.—Trenton Falls, N. Y.; Md.
N. J.—Smith Cat.
- indistincta* DOANE, Jour. N. Y. Ent. Soc., viii, 191, pl. viii, f. 6.—Collins, Idaho.
COQUILLETT, Proc. Wash. Acad. Sci., ii, 399, oc. in Alaska.
- inornata* OSTEN SACKEN, Mon. N. A. Dipt., iv, 219; iii, appendix.—Mass.; Cat. gives Tarrytown, N. Y.
- lenta* OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 241; Mon. N. A. Dipt., iv, 231.—Va., Md., Ill.
- lutea* DOANE, Jour. N. Y. Ent. Soc., viii, 191, pl. viii, f. 4.—Pa.
- luteipennis* OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 236; Mon. N. A. Dipt., iv, 217, pl. ii, f. 10, and iv, f. 25; Biologia, Dipt., i, 8.—D. C.; Fla.; S. C.; Mass.; Cal. and N. Sonora, Mex.
? WALKER, Dipt. Saund., 437 (*Limnobia biterminata*).—U. S. [O. S., with a ?]
HART, Bull. Ill. State Lab. N. H., iv, 200, desc. and figs. of larva, found in water among dead aquatic plants; Ill.
N. J.—Smith Cat.
- macrocera* SAY, Jour. Acad. Sci. Phil., iii, 20; Compl. Works, ii, 46 (*Limnobia*).—E. Fla.
WIEDEMANN, Auss. Zw., i, 34 (id.).
MACQUART, Hist. Nat. Dipt., i, 108 (*Cylindritoma*).
OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 234 (*Lasiomastix*); Mon. N. A. Dipt., iv, 204.—S. Va., Fla., Ill., Quebec.
JOHANNSEN, Ent. News, xiv, 14, oc. at Axton, N. Y., and notes.
N. J.—Smith Cat.; Montreal—Chagnon.
- montana* OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 240 (*Dactylolabis*); Mon. N. A. Dipt., iv, 227, pl. ii, f. 7, and iv, f. 26.—Near New York City; Cat. gives Quebec and Cal.
- munda* OSTEN SACKEN, Mon. N. A. Dipt., iv, 226.—White Mts., N. H.; Cat. gives Quebec.
- nebulosa* BELLARDI, see *Epiphragma*.
- nigrilinea* DOANE, Jour. N. Y. Ent. Soc., viii, 190, pl. viii, f. 2.—Olympia, Wash.
- niveitarsis* OSTEN SACKEN, Mon. N. A. Dipt., iv, 209.—Del., Md.
- poetica* OSTEN SACKEN, Mon. N. A. Dipt., iv, 207.—Milton, Mass.
- quadrata* OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 241; Mon. N. A. Dipt., iv, 230; pl. ii, f. 9.—N. Y., Va., Md.; Cat. gives Quebec.
- recondita* OSTEN SACKEN, Mon. N. A. Dipt., iv, 212.—N. Y., Pa., Ga.
N. J.—Smith Cat.
- rufibasis* OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 239 (*Prionolabis*); Mon. N. A. Dipt., iv, 225, pl. ii, f. 3, and iv, f. 27.—D. C., N. Y., Mass.
DOANE, Jour. N. Y. Ent. Soc., viii, 190, pl. viii, f. 3.—Wawawai, Wash.
N. J.—Smith Cat.; Montreal—Chagnon.
- tenuicornis* OSTEN SACKEN, Mon. N. A. Dipt., iv, 208.—White Mts., N. H.
- tenuipes* SAY, Jour. Acad. Sci. Phil., iii, 21; Compl. Works, ii, 46 (*Limnobia*).—Pa.
OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 235; Mon. N. A. Dipt., iv, 41 and 210; Biologia, Dipt., i, 8.—D. C., Ga., Ill., Quebec, and N. Sonora, Mex.
WIEDEMANN, Auss. Zw., i, 33 (*Limnobia humeralis* Say) [O. S.].
- toxoneura* OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 236; Mon. N. A. Dipt., iv, 213.—Trenton Falls, N. Y.
N. J.—Smith Cat.

- ultima** OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 238; Mon. N. A. Dipt., iv, 222, pl. iv, f. 24.—D. C.; Maine; Quebec; Yukon R., Alaska.
- undulata** BELLARDI, Saggio, App., 3, pl. i, f. 2.—Mex.
- unica** OSTEN SACKEN, Mon. N. A. Dipt., iv, 205.—White Mts., N. H.
COQUILLETT, Proc. Wash. Acad. Sci., ii, 399, oc. in Alaska.

GYNOPLISTIA.

- WESTWOOD, London and Edinb. Philos. Mag., vi, 280, 1835; Trans., Ent. Soc. Lond., 1881, 369, pl. xviii, f. 5, 6.
- OSTEN SACKEN, Stud. Tipul., ii, 210, 1887, full discussion; thinks is not a North American genus.
- annulata** WESTWOOD, Lond. and Edinb. Philos. Mag., vi, 280.—Newfoundland.
- OSTEN SACKEN, loc. cit., thinks there was an error of locality, and the species does not occur in N. A.

ANISOMERA.

- MEIGEN, Syst. Besch., i, 210, 1818.
- MACQUART, Hist. Nat. Dipt., i, 117, 1834.
- ZETTERSTEDT, Dipt., Scand., x, 4037, 1851.
- SCHINER, Fauna Austr., ii, 532, 1864.
- LOEW, Zeitsch. f. Ges. Naturwiss., xxvi, 1865.
- OSTEN SACKEN, Mon. N. A. Dipt., iv, 238, 1869; Stud. Tipul., ii, 219, 1887, notes.
- LATREILLE, Gen. Crust. et Ins., iv, 260, 1809 (*Hexatoma*) [O. S.].
- megacera** OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 242; Mon. N. A. Dipt., iv, 243, pl. ii, f. 12.—D. C., Md.

ERIOCERA.

- MACQUART, Dipt. Exot., i, 1, 74, 1838.
- OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 243 (*Eriocera* and *Arrhenica*); Mon. N. A. Dipt., iv, 244, 1869; Biologia, Dipt., i, 10, table of Mexican and Central Amer. forms; Stud. Tipul., ii, 220, 1887.
- WALKER, List, i, 78, 1848 (*Pterocosmus*) [O. S.].
- LOEW, Bernstein, etc., 38, 1850 (*Allarithmia*) [O. S.].
- BIGOT, Annales, 1859, 123 (*Physecrania*) [O. S.].
- antennaria** DOANE, Jour. N. Y. Ent. Soc., viii, 194, pl. viii, f. 12.—Columbus, O.
- aurata** DOANE, Jour. N. Y. Ent. Soc., viii, 194, pl. viii, f. 13.—N. C.
- austera** DOANE, Jour. N. Y. Ent. Soc., viii, 192, pl. viii, f. 9.—Olympia, Wash.
- brachycera** OSTEN SACKEN, West. Dipt., 204.—White Mts., N. H.
- brunneipes** WILLISTON, Biologia, Dipt., Suppl., 227, pl. iv, f. 5.—Orizaba, Mex.
- californica** OSTEN SACKEN, West. Dipt., 204.—Marin Co., Cal.
- eriphora** WILLISTON, Kans. Univ. Quart., ii, 61.—Wash.
- erythræa** OSTEN SACKEN, Biologia, Dipt., i, 11.—Guatemala.
- fasciata** WILLISTON, Biologia, Dipt., Suppl., 226, pl. iv, f. 4.—Morelos, Mex.
- flavida** WILLISTON, Biologia, Dipt., Suppl., 227.—Morelos, Mex.
- fuliginosa** OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 243; Mon. N. A. Dipt., iv, 255, pl. iv, f. 28.—Va., D. C.
N. J.—Smith Cat.
- gibbosa** DOANE, Jour. N. Y. Ent. Soc., viii, 193, pl. viii, f. 10.—Mich.
- gracilis** OSTEN SACKEN, Biologia, Dipt., i, 12.—Orizaba, Mex.
- hæmorrhœa** OSTEN SACKEN, Biologia, Dipt., i, 11.—Orizaba, Mex.
- lessepsi** OSTEN SACKEN, Biologia, Dipt., i, 13.—Panama.

- longicornis** WALKER, List, 1, 82 (*Anisomera*).—Martin Falls, Canada.
 OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 245 (*Arrhenica*); Mon. N. A. Dipt., iv, 253.—Trenton Falls, N. Y.; Me.; Ill.; Mass.
mesoxantha OSTEN SACKEN, Biologia, Dipt., 1, 10.—Orizaba, Mex.
obscura WILLISTON, Kans. Univ. Quart., ii, 61.—Wash., Cal.
obsoleta WILLISTON, Biologia, Dipt., Suppl., 227.—Honduras.
parva DOANE, Jour. N. Y. Ent. Soc., viii, 192, pl. viii, f. 8.—Stanford Univ., Cal.
pretiosa OSTEN SACKEN, Biologia, Dipt., 1, 12.—Orizaba, Mex.
spinosa OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859 (*Arrhenica*); Mon. N. A. Dipt., iv, 252, pl. iv, f. 29 (the female belongs to *brachycera*.—See West. Dipt., 205).—Trenton Falls, N. Y.; Mass.
 N. J.—Smith Cat.; Beulah, N. M.—Skinner.
trifasciata ROEDER, Stett. Ent. Zeit., 1885, 338.—Porto Rico.
velveta DOANE, Jour. N. Y. Ent. Soc., viii, 193, pl. viii, f. 11.—Col.
wilsonii OSTEN SACKEN, Mon. N. A. Dipt., iv, 255.—Del.
 N. J.—Smith Cat.
zonata OSTEN SACKEN, Biologia, Dipt., 1, 10.—Orizaba, Mex.

PENTHOPTERA.

- SCHINER, Wien. Ent. Monatschr., vii, 220, 1863; Fauna Austr., ii, 534, 1864.
 OSTEN SACKEN, Mon. N. A. Dipt., iv, 256, 1869.
albitarsis OSTEN SACKEN, Mon. N. A. Dipt., iv, 257.—New London, Conn.; Pa.

DICRANOTA.

- ZETTERSTEDT, Ins. Lapp., 851, 1840; Dipt. Scand., x, 4033, 1851.
 SCHINER, Fauna Austr., ii, 530, 1864.
 OSTEN SACKEN, Mon. N. A. Dipt., iv, 278, 1869.
argentea DOANE, Jour. N. Y. Ent. Soc., viii, 196, pl. viii, f. 19.—Seattle, Wash.
 COQUILLETT, Proc. Wash. Acad. Sci., ii, 401, oc. in Alaska, at Berg Bay.
eucera OSTEN SACKEN, Mon. N. A. Dipt., iv, 281.—D. C.
rivularis OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 249; Mon. N. A. Dipt., iv, 281, pl. ii, f. 16.—D. C.

RHAPHIDOLABIS.

- OSTEN SACKEN, Proc. Ent. Soc. Phil., 1865, 225; Mon. N. A. Dipt., iv, 284, 1869.
debilis WILLISTON, Kans. Univ. Quart., ii, 62.—Cal.
 COQUILLETT, Proc. Wash. Acad. Sci., ii, 401, oc. in Alaska, several places.
flaveola OSTEN SACKEN, Mon. N. A. Dipt., iv, 288.—Md., Mass.
tenuipes OSTEN SACKEN, Mon. N. A. Dipt., iv, 287, pl. ii, f. 17.—Md.; Saratoga Spr., N. Y.

PLECTROMYIA.

- OSTEN SACKEN, Mon. N. A. Dipt., iv, 282, 1869 (mentioned without desc. as *Astrolabis* in Proc. Ent. Soc. Phil., 1865, 225).
modesta OSTEN SACKEN, Mon. N. A. Dipt., iv, 284, pl. ii, f. 18.—White Mts., N. H.

ULA.

- HALIDAY, Ent. Mag., 1, 153, 1833.
 SCHINER, Fauna Austr., ii, 531, 1864.
 OSTEN SACKEN, Mon. N. A. Dipt., iv, 274, 1869.
elegans OSTEN SACKEN, Mon. N. A. Dipt., iv, 276.—White Mts., N. H.
pauper OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 251 (*pilosa*, preoc.); Mon. N. A. Dipt., iv, 277.—D. C.

AMALOPIS.

HALIDAY, in Walker's Ins. Brit., Dipt., III, addenda, p. xv, 1856.

SCHINER, Fauna Austr., II, 527, 1864.

KOLENATI, Wien. Ent. Monatschr., IV, 391, 1860 (*Crumobia*) [O. S.].

ZETTERSTEDT, Ins. Lapp., 852, 1840 (*Tricyphona*, in part); Dipt. Scand., X, 4035, 1851 (*id.*).

OSTEN SACKEN, Mon. N. A. Dipt., IV, 260, 1869.

Note.—The controversy between Osten Sacken and Bergroth as to the propriety of displacing the name *Amalopsis* for *Tricyphona* will be found in the following papers:

BERGROTH, Wien. Ent. Zeit., VII, 199.

OSTEN SACKEN, Berl. Ent. Zeitsch., XXXI, 224.

BERGROTH, Wien. Ent., Zeit., XVII, 267.

OSTEN SACKEN, Berl. Ent. Zeitsch., XLII, 150.

In my opinion Osten Sacken makes out a good case for the retention of *Amalopsis*.

ampla DOANE, Jour. N. Y. Ent. Soc., VIII, 195, pl. VIII, f. 17.—Seattle, Wash.

auripennis OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 247; Mon. N. A. Dipt., IV, 268.—Mass.

calcar OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 247; Mon. N. A. Dipt., IV, 268, pl. II, f. 14; West. Dipt., 205, note.—Wis., White Mts., N. H.; Quebec; Cal?

constans DOANE, Jour. N. Y. Ent. Soc., VIII, 196, pl. VIII, f. 18.—Olympia, Tokeland, and South Bend, all in Wash.

diaphana DOANE, Jour. N. Y. Ent. Soc., VIII, 195, pl. VIII, f. 16 (*disphana*, a misprint).—Pullman, Olympia, and Seattle, all in Wash.

COQUILLET, Proc. Wash. Acad. Sci., II, 399, oc. in Alaska, several places.

exoloma DOANE, Jour. N. Y. Ent. Soc., VIII, 194, pl. VIII, f. 14.—Pullman, Wash.

hyperborea OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 292; Mon. N. A. Dipt., IV, 269.—Labrador.

inconstans OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 247; Mon. N. A. Dipt., IV, 266, pl. II, f. 15 and IV, f. 30.—Va.; White Mts., N. H.; D. C.; N. Y.

EGGER, Verh. Zool. Bot. Ges., XIII, 1103, 1863 (*tipulina*).—Europe.

SCHINER, Fauna Austr., II, 528 (*id.*).

BERGROTH, Verh. Zool.-Bot. Ges., XXXVIII, 1888, 650, syn. and notes (*Tricyphona*).

JOHNSON, Ent. News, XII, 305, figs. showing variation in venation.

N. J.—Smith Cat.; Quebec—O. S. Cat.

septentrionalis BERGROTH, Wien. Ent. Zeit., VII, 199 (*Tricyphona*).—Sitka.

vernalis OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 291; Mon. N. A. Dipt., IV, 270.—White Mts., D. C.

vitripennis DOANE, Jour. N. Y. Ent. Soc., VIII, 195, pl. VIII, f. 15.—Wawawai and Olympia, Wash.

COQUILLET, Proc. Wash. Acad. Sci., II, 399, oc. in Lowe Inlet, Brit. Col. (*Tricyphona*).

PEDICIA.

LATREILLE, Gen. Crust. et Ins., IV, 255, 1809.

MACQUART, Hist. Nat. Dipt., I, 91, 1834.

SCHINER, Fauna Austr., II, 526, 1864.

OSTEN SACKEN, Mon. N. A. Dipt., IV, 273, 1869.

ALDRICH, Psyche, Feb., 1895, 201, notes.

BELING, Verh. Zool. Bot. Ges., 1878, 45, desc. of larva and pupa of a European species.

HINE, Ohio Naturalist, III, 416, 1903, table of species.

albivitta WALKER, List, I, 37; loc. cit., 38 (*contermina*) [O. S.].—Nova Scotia.

OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 248; Mon. N. A. Dipt., IV, 273.—Trenton Falls, N. Y.; Conn.; Mass.

ALDRICH, Psyche, Feb., 1895, 201, fig. of wing.—N. J.

PETTIT, Bull. 186, Mich. Ex. Sta., oc. at Chatham, in N. Mich. Quebec—Wulp.

magnifica HINE, Ohio Naturalist, III, 417.—Port Renfrew, B. C.

obtusa OSTEN SACKEN, West. Dipt., 205; Stud. Tipul., II, 224.—San Francisco.

ALDRICH, Psyche, Feb., 1895, 202, redesc.—Wash.

OSTEN SACKEN, Psyche, April, 1895, notes.

COQUILLET, Proc. Wash. Acad. Sci., II, 401, oc. in Alaska.

Note.—The specimen I described has the dark mark on the wing extending to the hind border; Osten Sacken's had not. I have now another (broken) specimen which agrees with his. There may be three western species.

rivosa LINN., see *Tipula nodulicornis*.

ORNITHODES.

COQUILLET, Proc. Wash. Acad. Sci., II, 400, 1900.

harrimani COQUILLET, loc. cit.—Virgin Bay, Prince William Sound, Alaska.

POLYANGÆUS.

DOANE, Jour. N. Y. Ent. Soc., VIII, 196, 1900.

maculatus DOANE, Jour. N. Y. Ent. Soc., VIII, 197, pl. VIII, f. 20.—Seattle and Olympia, Wash.

CYLINDROTOMA.

MACQUART, Hist. Nat. Dipt., I, 107, 1834.

ZETTERSTEDT, Dipt. Scand., X, 3900, 1851.

SCHINER, Fauna Austr., II, 562, 1864.

OSTEN SACKEN, Mon. N. A. Dipt., IV, 296, 1869.

MIALl and SHELFORD, Trans. Ent. Soc. Lond., 1897, 343-346, 4 plates, contains a discussion of the larva of a European species.

americana OSTEN SACKEN, Proc. Ent. Soc. Phil., 1865, 236; Mon. N. A. Dipt., IV, 299.—White Mts., N. H.

juncta COQUILLET, Proc. Wash. Ac. Sci., II, 401.—Virgin Bay, Alaska.

nodicornis OSTEN SACKEN, see *Liogma*.

splendens DOANE, Jour. N. Y. Ent. Soc., VIII, 197, pl. VIII, f. 21.—Unalaska.

TRIOGMA.

SCHINER, Wiener Ent. Mon., VII, 223, 1863; Fauna Austr., II, 560, 1864.

OSTEN SACKEN, Mon. N. A. Dipt., IV, 303, 1869.

exsculpta OSTEN SACKEN, Proc. Ent. Soc. Phil., 1865, 239; Mon. N. A. Dipt., IV, 304.—Pa.

LIOGMA.

OSTEN SACKEN, Mon. N. A. Dipt., IV, 298, 1869; Stud. Tipul., II, 226, note.

nodicornis OSTEN SACKEN, Proc. Ent. Soc. Phil., 1865, 239 (*Triogma*); Mon. N. A. Dipt., IV, 301 (*Cylindrotoma*); Stud. Tipul., II, 226, note.—D. C.; N. Y.; White Mts., N. H.; Ill.; N. J. Cat. gives Quebec.

PHALACROCERA.

SCHINER, Wien. Ent. Mon., VII, 224, 1863; Fauna Austr., II, 1864.

OSTEN SACKEN, Mon. N. A. Dipt., IV, 305, 1869.

MILL and SHELFORD, Trans. Ent. Soc. Lond., 1897, 343-366, 4 plates, gives full desc. of larva of *Ph. replicata*, a European species, etc.

tipulina OSTEN SACKEN, Proc. Ent. Soc. Phil., 1865, 241; Mon. N. A. Dipt., IV, 308.—White Mts., N. H.

IDIOPLASTA.

OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 252 (*Protoplasia*); Mon. N. A. Dipt., IV, 316, 1869 (*id.*); West. Dipt., 208 (amended to *Protoplasia*); Cat., 222, note 38, name changed to *Idioplasta* on account of preoccupation; Stud. Tipul., II, 230, notes on preoccupation, etc.; Verh. Zool.-Bot. Ges., XXIX, 517, review of relations.

Note.—Whether *Protoplasia* LEIDY, in Rhizopoda, was really published prior to 1877 is a question for investigation; see O. S., Stud. Tipul., II, 230.

fitchii OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 252 (*Protoplasia*); Mon. N. A. Dipt., 319, fig. (*id.*); Cat., 222, note 38.—N. Y.; Cat. gives Ga.

vipio OSTEN SACKEN, West. Dipt., 208 (*Protoplasia*).—San Mateo, Cal.

BITTACOMORPHA.

WESTWOOD, Lond. and Edinb. Philos. Mag., VI, 281, 1835.

OSTEN SACKEN, Mon. N. A. Dipt., IV, 313, 1869; Verh. Zool.-Bot. Ges., XXIX, 517, notes.

ALDRICH, Psyche, Feb., 1895, 200, table of species.

clavipes FABRICIUS, Spec. Ins., 404 (*Tipula*); Mant. Ins., II, 323 (*id.*); Ent. Syst., IV, 239 (*id.*); Syst. Antl., 22 (*Ptychoptera*).—N. A.

WIEDEMANN, Auss. Zw., I, 59 (*Ptychoptera*).—Pa.

WESTWOOD, Lond. and Edinb. Philos. Mag., VI, 281.—Newfoundland.

OSTEN SACKEN, Mon. N. A. Dipt., IV, 315.—Nova Scotia, Wis., Fla.

BRUES, Biol. Bull., I, 155, note on tracheal dilatations in legs.

White Mts., N. H.—Slosson; N. J.—Smith Cat.; Saranac Inn, N. Y.—Needham.

occidentalis ALDRICH, Psyche, Feb., 1895, 201.—Seattle, Wash.

OSTEN SACKEN, Psyche, April, 1895, 230, note.

sackenii ROEDER, Wien. Ent. Zeitung, IX, 230.—Nevada.

ALDRICH, Psyche, Feb., 1895, 200, redesc.—Seattle, Wash.

PTYCHOPTERA.

MEIGEN, Illig. Mag., II, 262, 1803; Syst. Besch., I, 204, 1818.

MACQUART, Hist. Nat. Dipt., I, 76, 1834.

ZETTERSTEDT, Dipt. Scand., X, 4024, 1851.

SCHINER, Fauna Austr., II, 495, 1864.

OSTEN SACKEN, Mon. N. A. Dipt., IV, 309, 1869; Cat., 221, note 36, on larva and syst. position; Verh. Zool.-Bot. Ges., XXIX, 517, notes.

lenis OSTEN SACKEN, West. Dipt., 206.—Yosemite, Cal.

? WALKER, List, I, 80 (reproduced in Osten Sacken, Mon. IV, 324) (*metallica*).—Martin Falls, Canada. Synonymy by Osten Sacken, with a question; it seems to me very doubtful. Northern Ida.—J. M. A. Hudsonian zone, N. M.—Cockerell; he also mentions Col.

quadrifasciata SAY, Long's Exped., App., 359; Compl. Works, I, 244.—Pa.

WIEDEMANN, Auss. Zw., I, 60.

OSTEN SACKEN, Mon. N. A. Dipt., IV, 321, quotes Say.

- rufocincta** OSTEN SACKEN, Proc. Acad. Nat. Sci. Phil., 1859, 252; Mon. N. A. Dipt., IV, 313, pl. II, f. 19.—Quebec and White Mts. to Ill. N. J.—Smith Cat.

DOLICHOPEZA.

- CURTIS, Brit. Ent., 1825, 62.
 MEIGEN, Syst. Besch., VI, 283, pl. LXV, f. 10, 11 (called *Leptina* on plate), 1830.
 ZETTERSTEDT, Dipt. Scand., X, 4038, 1851.
 SCHINER, Fauna Austr., II, 525, 1864.
 OSTEN SACKEN, Stud. Tipul., I, 157, 1886.
annulata SAY, Jour. Acad. Sci. Phil., III, 25 (*Tipula*); Compl. Works, II, 49 (*id.*).—Pa.
 WIEDEMANN, Auss. Zw., I, 54 (*id.*).
 OSTEN SACKEN, Cat., 40; Stud. Tipul., I, 157.
 Middle States—O. S. Cat.; N. J.—Smith Cat.
Note.—Both Wiedemann and Osten Sacken erroneously refer to Say's desc. of *Tipula annulicornis*, an entirely different insect.

MEGISTOCERA.

- WIEDEMANN, Dipt. Exot., 41, 1821 (*Mackistocera*); Auss. Zw., I, 55, 1828.
 OSTEN SACKEN, Stud. Tipul., I, 158, 1886.
longipennis MACQUART, Dipt. Exot., I, 1, 57, pl. v, f. 1 (*Tipula*).—Cuba.
 OSTEN SACKEN, Stud. Tipul., I, 161, gen. ref.
 Porto Rico—Roeder.

BRACHYPREMNIA.

- OSTEN SACKEN, Stud. Tipul., I, 161, 1886.
dispellens WALKER, Trans. Ent. Soc. Lond., n. s., v, 333 (*Tipula*).—Mex.
 OSTEN SACKEN, Berl. Ent. Zeitsch., XXX, 162.—D. C., Tex.
 WILLISTON, Biologia, Dipt., Suppl., 229, oc. in Tabasco and Vera Cruz, Mex.
similis WILLISTON, Biologia, Dipt., Suppl., 229.—Tabasco, Mex.
unicolor OSTEN SACKEN, Stud. Tipul., II, 239.—Porto Rico.

TANYPREMNA.

- OSTEN SACKEN, Biologia, Dipt., I, 19, 1886.
opilio OSTEN SACKEN, loc. cit., fig.—Guatemala.

XIPHURA.

- BRULLÉ, Annales Soc. Ent. France, 1832, 205.
 OSTEN SACKEN, Stud. Tipul., I, 165, and early stages, 173, 1886.
atrata LINNÉ, Fauna Suec, 1749 (*Tipula*).—Europe.
 FABRICIUS, Syst. Antl., 19 (*Ctenophora*).
 MEIGEN, Syst. Besch., I, 158; VI, 285 (*id.*).
 DEGEER, Insectes, VI, 138, pl. XIX, f. 10 (*Tipula icheumonea*).
 BRULLÉ, Annales, I, 208, pl. v, f. 2, 1832 (*villaretiana*).
 STAEGER, Dipt. Dan., 3 (*Ctenophora ruficornis*).
 SCHINER, Fauna Austr., II, 499 (*Ctenophora*).
 VAN DER WULP, Tijdsch. v. Ent., XXIV, 147, oc. in Quebec (*Ctenophora*).
 OSTEN SACKEN, Stud. Tipul., I, 166, oc. in N. A.
frontalis OSTEN SACKEN, Proc. Ent. Soc. Phil., 1864, 48 (*Ctenophora*).—Mass.
 ? WALKER, List, I, 76 (*Ctenophora dorsalis*).—Newfoundland.

? WALKER, Dipt. Saund., 448 (*Ctenophora succedens*).—Canada. Syn. of both by O. S., with a doubt.

N. J.—Smith Cat.

fumipennis OSTEN SACKEN, Proc. Ent. Soc. Phil., 1864, 47 (*Ctenophora*).—Va. Also Stud. Tipul., 1, 167, gen. ref.

N. J.—Smith Cat.

topazina OSTEN SACKEN, Proc. Ent. Soc. Phil., 1864, 47 (*Ctenophora*); Stud. Tipul., 1, 167, gen. ref.—Va.

Montreal—Chagnon.

CTENOPHORA.

MEIGEN, Illig. Mag., II, 263, 1803; Syst. Besch., 1, 155, 1818.

MACQUART, Hist. Nat. Dipt., 1, 77, 1834.

SCHINER, Fauna Austr., II, 498, 1864.

OSTEN SACKEN, Stud. Tipul., 1, 164, and early stages, 173, 1886.

angustipennis LOEW, Cent., x, 3.—Cal.

OSTEN SACKEN, West. Dipt., 211.—Cal.

WILLISTON, Kans. Univ. Quart., II, 63.—Wash.

BERGROTH, Wien. Ent. Zeit., VII, 201.—Vancouver Id., Brit. Col.

apicata OSTEN SACKEN, Proc. Ent. Soc. Phil., 1864, 46.—Me., N. H.

Montreal—Chagnon.

dorsalis WALKER, List, 1, 76.—Newfoundland.

nubecula OSTEN SACKEN, Proc. Ent. Soc. Phil., 1864, 45.—Ill.

N. J.—Smith Cat.

similis WILLISTON, Kans. Univ. Quart., II, 63.—Wash.

PACHYRHINA.

MACQUART, Hist. Nat. Dipt., 1, 88, 1834.

ZETTERSTEDT, Dipt. Scand., x, 3985, 1851.

SCHINER, Fauna Austr., II, 503, 1864.

OSTEN SACKEN, Biologia, Dipt., 1, 15, table of Mex. and C. A. spp.

WEBSTER, Insect Life, III, 12, mentions damage done to wheat by a species in Indiana; Bull. Ohio Ex. Station, Tech. Ser., 1, No. 3, 152, describes oviposition of an undetermined sp.

abbreviata LOEW, Cent., IV, 36.—Miss.

affinis BELLARDI, Saggio, 1, 10 (*Tipula*).—Mex.

OSTEN SACKEN, Biologia, Dipt., 1, 15, note on the type.

altissima OSTEN SACKEN, West. Dipt., 210.—Pike's Peak, Col.; Taos Peak, N. M., above timber line.

circumscripta LOEW, Cent., IV, 38.—Cuba.

collaris SAY, Jour. Acad. Sci. Phil., III, 23; Compl. Works, II, 49 (*Tipula*).—Pa.

WIEDEMANN, Auss. Zw., 1, 52 (id.).

Mass. and D. C.—O. S.; N. J.—Smith Cat.

consularis OSTEN SACKEN, Biologia, Dipt., 1, 17.—Costa Rica, Nicaragua.

SCHINER, Novara, 34 (*elegans* FAB.).—Venezuela [O. S.].

WILLISTON, Biologia, Dipt., Suppl., 228, oc. in Tabasco, Mex.

elegantula WILLISTON, Trans. Ent. Soc. Lond., 1896, 295, pl. x, f. 70.—St. Vincent, W. I.

erythrophrys WILLISTON, Kans. Univ. Quart., II, 63.—Col.

JOHNSON, Trans. Amer. Ent. Soc., XXIX, 101.—N. M. and Col.

Beulah, N. M.—Skinner.

eucera LOEW, Cent., IV, 39.—D. C.

N. J.—Smith Cat.; White Mts., N. H.—Slosson.

- excelsior** BERGROTH, Wien. Ent. Zeit., VII, 239.—Cascade Mts., Brit. Col.
- ferruginea** FABRICIUS, Syst. Antl., 28 (*Tipula*).—N. A.
 WIEDEMANN, Dipt. Exot., 28; Auss. Zw., 1, 55 (id.).—Pa.
 MACQUART, Dipt. Exot., 1, 1, 50 (*quadrilineata*).—Mex. [O. S.].
 MACQUART, Dipt. Exot., Suppl., IV, 13, pl. 1, f. 3.—N. A.
 BELLARDI, Saggio, 1, 9 (*proxima*).—Mex. [O. S.].
 OSTEN SACKEN, West. Dipt., 211, oc. in Cal. and Col.; Biologia, Dipt., 1, 18, oc. in Durango, Mex., syn., etc.
 HART, Bull. Ill. State Lab. Nat. Hist., IV, 218, desc. and figs. larva and pupa; larva in the ground.
 WILLISTON, Biologia, Dipt., Suppl., 228, oc. in Morelos, Guerrero and Orizaba, Mex.
 Fla.—Johnson; White Mts., N. H.—Slosson; N. J.—Smith Cat.; Montreal—Chagnon. Beulah, N. M.—Skinner; Axton, N. Y.—M. & H.
- gracilicornis** LOEW, Cent., v, 32.—Western N. Y.
- histrio** FABRICIUS, see *lineata* SCOP.
- incurva** LOEW, Cent., IV, 32.—D. C.
 Atl. States—O. S.
 ? WALKER, List, 1, 72 (*alterna*).—Nova Scotia [O. S., with a doubt].
- lineata** SCOPOLI, Ent. Carn., 320 (*Tipula*).—Europe.
 FABRICIUS, Ent. Syst., IV, 237; Syst. Antl., 28 (*Tipula histrio*).
 DEGEER, Ins., VI, 137, pl. XIX, f. 2, 3 (*Tipula flavomaculata*).
 MEIGEN, Klassif., 71 (*T. cornicina*) and 77; Syst. Besch., 1, 198 (*Tipula*).
 WALKER, Ins. Brit., III, 332 (*flavescens*).
 SCHNER, Fauna Austr., II, 507 (*histrio*).
 BERGROTH, Wien. Ent. Zeit., VII, 239, oc. in Brit. Col.
 LUNDBECK, Dipt. Groenl., 1, 263, oc. in Greenland (*histrio*).
- lugens** LOEW, Cent., v, 26.—White Mts., N. H.
 Canada—O. S.; Montreal—Chagnon. Province of Quebec—Fyles.
- macrocera** SAY, Jour. Acad. Sci. Phil., III, 24; Compl. Works, II, 48.—Pa.
 WIEDEMANN, Auss. Zw., 1, 52.
 MACQUART, Hist. Nat. Dipt., 1, 1108.—West. Fla.
 Atl. States—O. S.; N. J.—Smith Cat.; Kans.—J. M. A.
- mexicana** MACQUART, Dipt. Exot., Suppl., 1, 12.—Mex.
- nigrolutea** BELLARDI, Saggio, 1, 11 (*Tipula*).—Mex.
 WALKER, Trans. Ent. Soc., v, 111.
 OSTEN SACKEN, Biologia, Dipt., 1, 16, full desc.—Orizaba, Mex.; Costa Rica.
- nobilis** LOEW, Cent., v, 24.—White Mts., N. H.
 Jacksonville, Fla.—Johnson.
- occipitalis** LOEW, Cent., v, 30.—Yukon Riv.
- ordinaria** OSTEN SACKEN, Biologia, Dipt., 1, 16.—Durango, Mex.
- pedunculata** LOEW, Cent., IV, 33.—Saskatchewan R., Canada.
 JOHANNSEN, Ent. News, XIV, 14, note.—Axton, N. Y.
 Ill. and Catskill, N. Y.—O. S.; White Mts., N. H.—Slosson.
- polymera** LOEW, Cent., IV, 40.—Ill.
 Ohio—O. S.
- proxima** BELLARDI, see *ferruginea*.
- punctum** LOEW, Cent., IV, 34.—Ill.
 Me.—O. S.
- quadrilineata** MACQUART, see *ferruginea*.
- sodalis** LOEW, Cent., v, 29.—Conn.

N. J.—Smith Cat.

suturalis LOEW, Cent., iv, 37.—Ga.

Fla.—O. S.

tenuis LOEW, Cent., iv, 41.—Sharon Spr., N. Y.

Va.—O. S.; N. J.—Smith Cat.

unifasciata LOEW, Cent., iv, 35.—D. C.

Middle States—O. S.; N. J.—Smith Cat.

unimaculata LOEW, Cent., v, 28.—N. Y.

usta OSTEN SACKEN, Biologia, Dipt., i, 17.—Costa Rica.

virescens LOEW, Cent., v, 25.—D. C.

N. J.—O. S. and Smith Cat.

vittula LOEW, Cent., v, 27.—Huds. Bay Terr.

COQUILLET, Proc. Wash. Acad. Sci., ii, 405, oc. in Alaska.

White Mts., N. H.—Slosson.

wulpiana BERGROTH, Wien. Ent. Zeit., vii, 200.—Siskiyou Co., Cal.

xanthostigma LOEW, Cent., v, 31.—Ill.

STYGEROPIS.

LOEW, Stett. Ent. Zeit., 1844, 170 (*Prionocera*, preoc.); Cent., iv, 42, 1863, change of name.

OSTEN SACKEN, Stud. Tipul., i, 182, 1886.

Note.—Whether *Prionocera* is really preoccupied is a question for examination.

bergrothi WILLISTON, Kans. Univ. Quart., ii, 64.—Alaska.

dimidiata LOEW, Cent., vi, 2.—Huds. Bay Terr.

fuscipennis LOEW, Cent., vi, 3.—Ill.

parrii KIRBY, see *Tipula*.

sordida LOEW, Cent., iv, 42.—L. Winnipeg.

HOLORUSIA.

LOEW, Cent., iv, 1, 1863.

OSTEN SACKEN, Stud. Tipul., i, 183, 1886, quotes Loew in translation.

BERGROTH, Ent. Tidskr., ix, 140, 1888, asserts that this genus is not sufficiently distinct from *Tipula*, and can at best be regarded as a subgenus.

The acceptance of this view would make *rubiginosa* preoccupied; he therefore proposes to change its name to *grandis*.

rubiginosa LOEW, Cent., iv, 1.—Cal.

COMSTOCK and KELLOGG, Elements of Insect Anatomy, chap. iv, on larva. Northern Idaho—J. M. A.

LONGURIO.

LOEW, Cent., viii, 2, 1869.

OSTEN SACKEN, Stud. Tipul., i, 183, 1886, says looks like an ordinary *Tipula*.

testaceus LOEW, Cent., viii, 2.—Mass.

JOHNSON, Ent. News., ix, 229, oc. in Philadelphia.

OSTEN SACKEN, Stud. Tipul., i, 183, note on type.

N. J.—Smith Cat.

TIPULA.

LINNÉ, Fauna Suecica, 2d edit., 430, 1761. (The name occurs in the first edition of Syst. Nat., in 1735.)

FABRICIUS, Syst. Antl., 22, 1805.

MEIGEN, Syst. Besch., i, 169, 1818.

- MACQUART, Hist. Nat. Dipt., i, 80, 1834.
 ZETTERSTEDT, Dipt. Scand., x, 3911, 1851.
 SCHINER, Fauna Austr., ii, 509, 1864.
 LOEW, Besch. Europ. Dipt., iii, 5-7, on the genital organs of the male.
 FORBES, Ill. Rept., 1888, 78, pl. vi, f. 4, larvæ in sod, called "meadow maggots" and "leather-jackets"; life hist. of *Tipula bicornis* LOEW MS., etc.
 HART, Bull. Ill. State Lab. Nat. Hist., iv, 208, mentions larva of *Tipula bicornis* again.
abdominalis SAY, Jour. Acad. Sci. Phil., iii, 18; Compl. Works, ii, 45 (*Ctenophora*).—Pa.
 WIEDEMANN, Auss. Zw., i, 37 (id.).
 WALKER, List, i, 65 (*albilatus*) [O. S.].—"North America?"
 NEEDHAM, Bull. 47, N. Y. State Mus., 575, pl. xxv, f. 2, describes and figures larva, which occurs in ponds in the Adirondacks; the same figure is printed on the cover of Ent. News for 1902.
abluta DOANE, Jour. N. Y. Ent. Soc., ix, 122.—Colo.
acuta DOANE, Jour. N. Y. Ent. Soc., ix, 116.—Palo Alto, Cal.
æqualis DOANE, Jour. N. Y. Ent. Soc., ix, 108.—Wash., Cal., several places.
affinis BELLARDI, see *Pachyrhina*.
albocaudata DOANE, Jour. N. Y. Ent. Soc., ix, 123.—Wawawai and Pullman, Wash.
albicincta DOANE, Jour. N. Y. Ent. Soc., ix, 110.—Col.
albofascia DOANE, Jour. N. Y. Ent. Soc., ix, 126.—Corvallis, Ore.
albonotata DOANE, Jour. N. Y. Ent. Soc., ix, 120.—Battle Creek, Mich.
albovittata DOANE, Jour. N. Y. Ent. Soc., ix, 119.—Pullman, Wash.
angustipennis LOEW, Cent., iv, 19.—Mass., Winnipeg.
 ? WALKER, List, i, 70 (*glomerata*).—N. A. [O. S., with a doubt.]
 Montreal—Chagnon.
angulata LOEW, Cent., v, 22.—Mass.
 White Mts., N. H.—Slosson.
annulicornis SAY, Jour. Acad. Sci. Phil., vi, 151; Compl. Works, ii, 350.—Ind.
apicalis LOEW, Cent., iv, 2.—N. Y.
appendiculata LOEW, Cent., iv, 20.—Saskatchewan R., Canada.
 COQUILLET, Proc. Wash. Acad. Sci., ii, 402, oc. in Alaska.
arctica CURTIS, Ross's Expedition, LXXVII, pl. A, f. 15.—Arctic America.
 HOLMGREN, Ins. Nordgroenl., 105, oc. in Greenland.
 O. FABRICIUS, Fauna Groenl., 156 (*viriosa* LINN., an erroneous identification).—Greenland. [Schiödte.]
 ZETTERSTEDT, Ins. Lapp., 841; Dipt. Scand., x, 3934 (*nodulicornis*).—N. Europe. [Schiödte.]
 STAEGER, Groenl. Antl., 355 (id.).
 OSTEN SACKEN, Cat., 37 and note 40, p. 222, synonymy.
armata DOANE, Jour. N. Y. Ent. Soc., ix, 119.—Seattle, Wash.
associans WALKER, Trans. Ent. Soc., n. ser., v, 333.—Mex.
atra LINNÉ, reported from Greenland by O. Fabricius, Fauna Groenl., is a mistaken identification; see O. S. Cat., 39, and Lundbeck, Dipt. Groenl., ii, 309.
australis DOANE, Jour. N. Y. Ent. Soc., ix, 104.—Ga., Tex.
balioptera LOEW, Cent., iv, 15.—English R., Canada.
barbata DOANE, Jour. N. Y. Ent. Soc., ix, 105.—Col.
beatula OSTEN SACKEN, West. Dipt., 209.—Marin Co., Cal.

- ✓ **bella** LOEW, Cent., iv, 29.—Conn., D. C. Osten Sacken gives Mass., N. Y., Canada.
N. J.—Smith Cat.; Montreal—Chagnon.
- besselsi** OSTEN SACKEN, Proc. Bost. Soc. Nat. Hist., Dec. 6, 1878.—Polaris Bay,
lat. 82 degrees.
- COQUILLET, Proc. Wash. Acad. Sci., II, 402, oc. at Muir Inlet, Alaska.
- bicornis** LOEW MS. has been referred to in several publications, but not yet de-
scribed. I note the following:
- FORBES, Ill. Ent. Rept., 1888, 78, larval stages; Ill.
- WEBSTER, Bull. Ohio Expt. Station, Tech. Ser., I, No. 3, extended account
of manner of oviposition, with figures; Ohio.
- DOANE, Jour. N. Y. Ent. Soc., IX, 113, notes from specimens sent him by
Professor Forbes.
- Beulah, N. M.—Skinner.
- bisetosa** DOANE, Jour. N. Y. Ent. Soc., IX, 111.—Pullman, Wash.; Collins, Ida.
- bituberculata** DOANE, Jour. N. Y. Ent. Soc., IX, 101.—Cal.
- borealis** WALKER, List, I, 66.—Nova Scotia.
- calcarata** DOANE, Jour. N. Y. Ent. Soc., IX, 107.—Mt. Rainier, Wash.
- ✓ **caloptera** LOEW, Cent., iv, 30.—Red R. of the North; Mass. (Loew gives R. I.,
but I take Osten Sacken's change to be a correction).
- N. J.—Smith Cat.
- calva** DOANE, Jour. N. Y. Ent. Soc., IX, 114.—Battle Creek, Mich.
- canadensis** LOEW, Cent., v, 19.—Huds. Bay Terr.
- carinata** DOANE, Jour. N. Y. Ent. Soc., IX, 103.—Pullman, Wash.
- centralis** LOEW, Cent., v, 21.—Huds. Bay Terr.
- White Mts., N. H.—Slosson.
- cervicula** DOANE, Jour. N. Y. Ent. Soc., IX, 100.—Mt. Rainier, Wash.
- cincta** LOEW, Cent., iv, 24.—D. C. O. S. gives White Mts., N. H., as does Mrs.
Slosson; N. J.—Smith Cat.
- Province of Quebec—Fyles.
- cincticornis** DOANE, Jour. N. Y. Ent. Soc., IX, 110.—Pa.
- cineracea** COQUILLET, Proc. Wash. Acad. Sci., II, 404.—Alaska, several places.
- clara** DOANE, Jour. N. Y. Ent. Soc., IX, 107.—Wawawai and Pullman, Wash.
- cognata** DOANE, Jour. N. Y. Ent. Soc., IX, 123.—Seattle and Olympia, Wash.;
Moscow, Idaho.
- concinna** DOANE, Jour. N. Y. Ent. Soc., IX, 115.—Olympia, Wash.
- contaminata** DOANE, Jour. N. Y. Ent. Soc., IX, 121.—Col.
- costalis** SAY, Jour. Acad. Sci. Phil., III, 23; Compl. Works, II, 48.—Pa., Md.
- WIEDEMANN, AUSS. ZW., I, 51.
- WEBSTER, Bull. 26, Div. of Ent., 1892, oc. in meadow;—injurious to sod;
mode of ovipositing.—Ind.
- Quebec—Wulp; Fla.—Johnson; N. J.—Smith Cat.; Montreal—Chagnon.
- craverii** BELLARDI, see *obliquefasciata*.
- cunctans** SAY, Jour. Acad. Sci. Phil., III, 23; Compl. Works, II, 48.—Pa.
- WIEDEMANN, AUSS. ZW., I, 45.
- LOEW, Cent., iv, 25 (*casta*).—Pa.
- OSTEN SACKEN, Cat., 222, note 41, syn.
- N. J.—Smith Cat.
- cuspidata** DOANE, Jour. N. Y. Ent. Soc., IX, 111.—Pa.; Battle Creek, Mich.
- decora** DOANE, Jour. N. Y. Ent. Soc., IX, 125.—Montreal, Canada.
- dejecta** WALKER, Dipt. Saund., 442.—U. S.
- Atl. States—O. S. N. J.—Smith Cat.; Montreal—Chagnon.
- diluta** DOANE, Jour. N. Y. Ent. Soc., IX, 117.—Col.
- discolor** LOEW, Cent., iv, 12.—Mass.



- disjuncta* WALKER, Dipt. Saund., 442.—U. S.
dispellens WALKER, see *Brachypremna*.
dorsimacula WALKER, List, 1, 69.—Nova Scotia.
dorsolineata DOANE, Jour. N. Y. Ent. Soc., ix, 98.—Keyport and Pullman, Wash.
duplex WALKER, List, 1, 66.—Nova Scotia.
edwardsii BELLARDI, Saggio, 1, 8, pl. 1, f. 2.—Mex.
 SCHINER, Novara, 35, may be same as *obliquefasciata* Macq.
eluta LOEW, Cent., iv, 27.—D. C.
 HART, Bull. State Lab. Nat. Hist., iv, 210, desc. and figs. of larva, which generally burrows in wet sand of river bank.—Ill.
 Quebec—Wulp.
fallax LOEW, Cent., iv, 10.—Cal.
 COQUILLET, Proc. Wash. Acad. Sci., ii, 402, oc. in Alaska.
 Beulah, N. M.—Skinner.
fasciata LOEW, Cent., iv, 6.—Sharon Spr., N. Y. O. S. gives N. J., as does Smith.
filipes WALKER, List, 1, 65.—St. John's Bluff, Fla.
 Florida, several places—Johnson.
flavicans FABRICIUS, Syst. Antl., 24 (*flavescens*, corrected in erratis).—N. A.
 WIEDEMANN, Dipt. Exot., 25; Auss. Zw., 1, 48.—N. A.
 NEEDHAM, Bull. 68, N. Y. State Mus., 280, pl. x, f. 3, pupa.—Lake Forest, Ill.
 U. S. and Canada—O. S. Montreal—Chagnon.
fragilis LOEW, Cent., iv, 7.—Me.
 White Mts., N. H.—Slosson.
fraterna LOEW, Cent., iv, 14.—D. C.
frigida WALKER, List, 1, 68.—Nova Scotia.
 White Mts., N. H.—Slosson.
fuliginosa SAY, Jour. Acad. Sci. Phil., iii, 18; Compl. Works, ii, 44 (*Ctenophora*).—Mo.
 WIEDEMANN, Auss. Zw., 1, 40 (id.).
 Middle and North. States—O. S.; N. J.—Smith Cat.
fumosa DOANE, Jour. N. Y. Ent. Soc., ix, 99.—Columbus, Ohio.
gelida COQUILLET, Proc. Wash. Acad. Sci., ii, 404.—Metlakatla, Alaska.
graphica DOANE, Jour. N. Y. Ent. Soc., ix, 124.—Palo Alto, Cal.
grandis BERGROTH, see *Holorusia rubiginosa*.
grata LOEW, Cent., iv, 11.—D. C. N. Y.—O. S.
hebes LOEW, Cent., iv, 18.—Conn., Ill., Me.
 N. J.—Smith Cat.; Montreal—Chagnon.
helvocincta DOANE, Jour. N. Y. Ent. Soc., ix, 101.—Mt. Rainier, Wash.
hirsuta DOANE, Jour. N. Y. Ent. Soc., ix, 113.—Battle Creek, Mich.
illustris DOANE, Jour. N. Y. Ent. Soc., ix, 97.—St. Anthony, Ida.; Olympia and Yakima, Wash.; Battle Creek, Mich.
impudica DOANE, Jour. N. Y. Ent. Soc., ix, 104.—Eastern Wash.
incisa DOANE, Jour. N. Y. Ent. Soc., ix, 118.—Wawawai and Pullman, Wash.
inermis DOANE, Jour. N. Y. Ent. Soc., ix, 112.—Battle Creek, Mich.; White Mts., N. H.; N. C.
infuscata LOEW, Cent., iv, 26.—N. Y.
 D. C.—O. S.
ignobilis LOEW, Cent., iv, 9.—D. C.
 White Mts., N. H.—O. S.
lamellata DOANE, Jour. N. Y. Ent. Soc., ix, 105.—Pullman, Wash.
latipennis LOEW, Cent., v, 20.—White Mts., N. H.
 Canada—O. S.

- leucophæa** DOANE, Jour. N. Y. Ent. Soc., IX, 117.—Col.
longipennis MACQUART, see *Megistocera*.
longiventris LOEW, Cent., IV, 5.—Ill.
 Maine and L. Winnipeg—O. S. N. J.—Smith Cat.
lucida DOANE, Jour. N. Y. Ent. Soc., IX, 126.—Moscow and Collins, Idaho.
macrolabis LOEW, Cent., V, 17.—Huds. Bay Terr.
 COQUILLET, Proc. Wash. Acad. Sci., II, 402, oc. in Alaska and White Mts., N. H.
maculipennis SAY, Long's Exped., App., 359 (*maculatipennis*); Compl. Works, I, 243 (id.).—N. W. Terr.
 WIEDEMANN, Auss. Zw., I, 46, name emended.
 WALKER, List, I, 67, oc. in Nova Scotia.
 Northern States—O. S.
megaura DOANE, Jour. N. Y. Ent. Soc., IX, 112.—Battle Creek, Mich.
microcephala VAN DER WULP, Tijdschr. v. Ent., XXIV, 150, pl. XV, f. 4.—Guadeloupe.
? monilifera LOEW, Linn. Ent., V, 404, pl. II, f. 26, 27.—Brazil.
 ? OSTEN SACKEN, Biologia, Dipt., I, 13, oc. in Costa Rica; identity not certain.
 ? WILLISTON, Biologia, Dipt., Suppl., 227, oc. in Tabasco, Mex.; identity not certain.
monoptera LINNÉ, of O. Fabricius, Fauna Groenl., was an error of determination; see O. S. Cat., 39, and Lundbeck, Dipt. Groenl., II, 309.
nebulosa BELLARDI, see *Epiphragma*.
nodulicornis ZETTERSTEDT, see *arctica*.
obliquefasciata MACQUART, Dipt. Exot., Suppl., I, 15, pl. I, f. 10.—New Grenada, S. A.
 BELLARDI, Saggio, I, 7, pl. I, f. 1 (*craverii*).—Mex.
 SCHINER, Novara, 35, syn., etc.
 OSTEN SACKEN, Cat., 39, notes; Biologia, Dipt., I, 15, doubtfully recognized from Mexico (*craverii*).
 WILLISTON, Biologia, Dipt., Suppl., 227, doubtfully recognized from Mex. (*craverii*). Compare also *edwardsii* and *pubera*.
pallida LOEW, Cent., IV, 16.—Mass.
parrii KIRBY, Suppl. to Capt. Parry's First Voyage, 1824 (*Ctenophora*).—Arctic America.
 OSTEN SACKEN, Cat., 40, refers to *Stygcropis*; Stud. Tipul., I, 183, note.
 LUNDBECK, Dipt. Groenl., I, 264, oc. in Greenland and gen. ref.
pennicornis LINNÉ, of O. Fabricius, Fauna Groenl., is a mistaken identification; see Lundbeck, Dipt. Groenl., II, 309.
platymera WALKER, Dipt. Saund., 441.—Canada.
præcisa LOEW, Cent., X, 2.—Cal.
pratorum KIRBY, Fauna Boreali-Amer., Ins., 310; republished in Canad. Ent., XIII, 164.—Canada.
pubera LOEW, Cent., V, 16.—Cal. Marin and Sonoma Cos.—O. S. O. S., Cat., 39, says very like *obliquefasciata* Macq.
puncticornis MACQUART, Dipt. Exot., Suppl., IV, 15, pl. I, f. 6.—N. A.
quadrinaculata BELLARDI, Saggio, I, 9, pl. I, f. 3.—Mex.
resurgens WALKER, List, I, 67.—Newfoundland.
retorta VAN DER WULP, Tijdschr. v. Ent., XXIV, 199, pl. XV, f. 3.—Quebec.
retusa DOANE, Jour. N. Y. Ent. Soc., IX, 109.—Wash., several places.
rostellata DOANE, Jour. N. Y. Ent. Soc., IX, 100.—Col.
septentrionalis LOEW, Cent., IV, 4.—Labrador.

- COQUILLET*, Proc. Wash. Acad. Sci., II, 402, oc. in Alaska; female has rudimentary wings; occurs also in White Mts., N. H.
- serrulata* LOEW, Cent., v, 18.—Ft. Resolution, Huds. Bay Terr.
- serta* LOEW, Cent., iv, 14.—L. Winnipeg; Mass.
Montreal—Chagnon.
- simplex* DOANE, Jour. N. Y. Ent. Soc., IX, 103.—Palo Alto, Cal.
- simulata* WALKER, Dipt. Saund., 441.—Canada.
White Mts., N. H.—Slosson.
- speciosa* LOEW, Cent., iv, 22.—Ill.
D. C.—O. S.; N. J.—Smith Cat.
- spectabilis* DOANE, Jour. N. Y. Ent. Soc., IX, 120.—Collins, Idaho.
- spernax* OSTEN SACKEN, West. Dipt., 210.—Sierra Nevada, Cal.
COQUILLET, Proc. Wash. Acad. Sci., II, 405, oc. at Metlakahtla, Alaska.
Northern Ida.—J. M. A.
- splendens* DOANE, Jour. N. Y. Ent. Soc., IX, 107.—Olympia, Wash.
- stalactoides* DOANE, Jour. N. Y. Ent. Soc., IX, 102.—Unalaska, Alaska.
- strepens* LOEW, Cent., iv, 28.—N. Y.
White Mts., N. H.—O. S.; N. J.—Smith Cat.; Axton, N. Y.—M. & H.
- streptocera* DOANE, Jour. N. Y. Ent. Soc., IX, 113.—Collins, Ida.; Olympia and Tokeland, Wash.
- strigata* COQUILLET, Proc. Wash. Acad. Sci., II, 402.—Metlakahtla, Sitka and Yakutat, Alaska.
- subcinerea* DOANE, Jour. N. Y. Ent. Soc., IX, 118.—Col.
- subfasciata* LOEW, Cent., iv, 13.—English R., Canada.
- subinfusata* WILLISTON, Trans. Ent. Soc. Lond., 1896, 295, pl. x, f. 69.—St Vincent, W. I.
- submaculata* LOEW, Cent., iv, 23.—Mass.
N. Y.—O. S.; N. J.—Smith Cat.
- subtenuicornis* DOANE, Jour. N. Y. Ent. Soc., IX, 125.—Seattle, Wash.
- subtilis* DOANE, Jour. N. Y. Ent. Soc., IX, 106.—Cal.
- sulphurea* DOANE, Jour. N. Y. Ent. Soc., IX, 99.—Battle Creek, Mich.
- suspecta* LOEW, Cent., iv, 8.—D. C.
White Mts., N. H.—Slosson.
- tenebrosa* COQUILLET, Proc. Wash. Acad. Sci., II, 403.—Berg Bay and Muir Inlet, Alaska.
- tephrocephala* LOEW, Cent., v, 23.—White Mts., N. H.
N. J.—O. S. and Smith Cat.
- ternaria* LOEW, Cent., v, 15.—Huds. Bay Terr.
- tessellata* LOEW, Cent., iv, 3.—Labrador.
- translucida* DOANE, Jour. N. Y. Ent. Soc., IX, 109.—Pa.
- tricolor* FABRICIUS, Ent. Syst., iv, 235; Syst. Antl., 26.—N. A.
WIEDEMANN, Dipt. Exot., 22; Auss. Zw., I, 44.—Ga.
Atlantic States—O. S.; N. J.—Smith Cat.
- triplex* WALKER, List, I, 66.—Nova Scotia.
- tristis* DOANE, Jour. N. Y. Ent. Soc., IX, 102.—Palo Alto, Cal.
- trivittata* SAY, Jour. Acad. Sci. Phil., III, 26; Compl. Works, II, 50.—Pa.
WIEDEMANN, Auss. Zw., I, 42.—Pa.
Atlantic States—O. S.; N. J.—Smith Cat.; White Mts., N. H.—Slosson.
- truncorum* MEIGEN, Syst. Besch., VI, 287.—Europe.
SCHUMMEL, Besch. Schles. Tipul., 51.
ZETTERSTEDT, Dipt. Scand., x, 3926.
SCHINER, Fauna Austr., II, 511.

GERSTAECKER, Zweite Deutsche nordophlfahrt, Leipzig, 1874, oc. in Greenland.

umbrosa LOEW, Cent., iv, 31.—La.

unicincta DOANE, Jour. N. Y. Ent. Soc., ix, 115.—Moscow and Collins, Ida.; Pullman and Keyport, Wash.

usitata DOANE, Jour. N. Y. Ent. Soc., ix, 124.—Tokeland, Wash.; Corvallis, Ore.

valida LOEW, Cent., iv, 21.—Mass., Ill.

N. Y.—O. S.; N. J.—Smith Cat.

varia DOANE, Jour. N. Y. Ent. Soc., ix, 122.—Olympia and Seattle, Wash.

versicolor LOEW, Cent., iv, 17.—Ill.

virgata WILLISTON, Biologia, Dipt., Dipt., Suppl., 228.—Morelos, Mex.

virgo OSTEN SACKEN, Biologia, Dipt., i, 14.—Durango, Mex.

vitrea VAN DER WULP, Tijdschr. v. Ent., xxiv, 150, pl. xv, f. 5.—Quebec.

DIXIDÆ.

DIXA.

MEIGEN, Syst. Besch., i, 216, 1818.

MACQUART, Hist. Nat. Dipt., i, 116, 1834.

ZETTERSTEDT, Dipt. Scand., x, 4048, 1851.

SCHINER, Fauna Austr., ii, 641, 1864.

JOHANNSEN, Bull. 68, N. Y. State Mus., 429, 1903, table of species.

MEINERT, De Eucephale Myggelarver, 1886, 452, full discussion of transformations in European species.

centralis LOEW, Cent., iii, 3.—N. Y.

? WALKER, List, i, 85 (nova) [O. S., with a doubt].—Martin Falls, Canada.

clavata LOEW, Cent., viii, 1.—Mass.

clavulus WILLISTON, Trans. Ent. Soc. Lond., 1896, 298, pl. x, f. 73.—St. Vincent, W. I.

JOHANNSEN, Bull. 68, N. Y. State Mus., 429 (*modesta*); syn. in Ent. News, xiv, 302.—N. Y.

fusca LOEW, Cent., iii, 5.—N. Y.

marginata LOEW, Lent., iii, 1.—D. C.

notata LOEW, Cent., iii, 4.—Md.

N. J.—Smith Cat.

terna LOEW, Cent., iii, 2.—N. Y.

? WALKER, List, i, 85 (recens) [O.S., with a doubt].—N. Y. Factory, Huds. B. Terr.

venosa LOEW, Cent., x, 1.—Tex.

PSYCHODIDÆ.

TOWNSEND, Trans. Amer. Ent. Soc., xix, 149, 1892, table of N. A. genera.

KINCAID, Ent. News, x, 30, 1899, table of genera.

KELLOGG, Ent. News, x, 46, 1899, desc. of an aquatic larva, and references to literature of immature stages.

PERICOMA.

WALKER, Ins. Brit., iii, 256, 1856.

SCHINER, Fauna Austr., ii, 632, 1864.

albitarsis WILLISTON, Trans. Ent. Soc. Lond., 1896, 284, pl. ix, f. 52.—St. Vincent, W. I.

bipunctata KINCAID, Ent. News, x, 34, f. 8.—Seattle, Wash.; Santa Cruz Mts., Cal.

COQUILLET, Proc. Wash. Acad. Sci., II, 397, oc. in Alaska.

Beulah, N. M.—Skinner.

californica KINCAID, Ent. News, XII, 195.—Congress Springs, Cal.

KELLOGG, Ent. News, XII, 46, figures larva and pupa, found in streams near Stanford University, Cal. (as *californiensis* KINCAID).

furcata KINCAID, Ent. News, x, 34, f. 13.—Pullman, Wash.

ocellaris MEIGEN, Klassif., 43, 1804 (*Trichoptera*); Syst. Besch., I, 105 (*Psychoda*). Europe.

SCHINER, Fauna Austr., II, 633.

KINCAID, Ent. News, XII, 194, describes var. *americana* from Maine.

olympia KINCAID, Ent. News, VIII, 144 (*Psychoda*); x, 31, f. 3.—Olympia, Wash.

sitchana KINCAID, Ent. News, x, 33.—Sitka, Alaska.

tridactyla KINCAID, Ent. News, x, 32, f. 2.—Seattle, Wash.

triloba KINCAID, Ent. News, x, 33, f. 6.—Seattle, Wash.

truncata KINCAID, Ent. News, x, 35, f. 10.—Palo Alto, Cal.

variegata KINCAID, Ent. News, x, 33, f. 7.—Seattle, Wash.

PSYCHODA.

LATREILLE, Précis, 152, 1796; Hist. Nat. Crust. et Ins., XIV, 293, 1804.

MEIGEN, Syst. Besch., I, 103, 1818.

MACQUART, Hist. Nat. Dipt., I, 164, 1834.

ZETTERSTEDT, Dipt. Scand., IX, 3701, 1850.

SCHINER, Fauna Austr., II, 635, 1864.

KINCAID, Ent. News, VIII, 145, 1897, anatomy, etc.

BANKS, Canad. Ent., XXVI, 330, 1894, table of species; loc. cit., XXXIII, 273, 1901, table of eastern species.

WILLISTON, Dipt. St. Vincent, in Trans. Ent. Soc. Lond., 1896, 283, table of St. Vincent spp.

albipuncta WILLISTON, Ent. News, IV, 113.—Cuba.

albitarsis BANKS, Canad. Ent., XXVII, 324.—Ithaca, N. Y.

alternata SAY, Long's Exped., 358; Compl. Works, I, 242.—Pa.

WIEDEMANN, Auss. Zw., I, 23.

WILLISTON, Ent. News, IV, 113, part desc.—Conn., Mich., S. D., Tenn., Kans.

BANKS, Canad. Ent., XXVI, 330 (N. Y.); XXXIII, 124, states that Eaton has admitted the synonymy of *sevpunctata* HAL., a later European species (see Schiner, Fauna Austr., II, 636); oc. in N. Y. and Va.

White Mts.—Slosson; St. Vincent, with a doubt—Will.; Pullman, Wash.—Kincaid.

angustipennis WILLISTON, Dipt. St. Vincent, 284, pl. IX, f. 51.—St. Vincent, W. I.

antennalis Dipt. St. Vincent, 283.—St. Vincent, W. I.

bicolor BANKS, Canad. Ent., XXVI, 333.—Sea Cliff, N. Y.

cinerea BANKS, Canad. Ent., XXVI, 331.—Sea Cliff, N. Y.

KINCAID, Ent. News, VIII, 143 (*pacifica*).—Cal., Ore., Wash., Alaska to Pribylof Ids.

COQUILLET, Proc. Wash. Acad. Sci., II, 397, oc. in Br. Col. (*pacifica*).

KINCAID, Ent. News, XII, 193, synonymy.

D. C., Va.—Banks.

degenera WALKER, List, I, 33.—Martin Falls, Canada.

elegans KINCAID, Ent. News, VIII, 144.—Seattle, Wash.

marginalis BANKS, Canad. Ent., XXVI, 333.—Sea Cliff, N. Y.

JOHNSON, Ent. News, x, 220, oc. at Riverton, N. J.

- minuta** BANKS, Canad. Ent., xxvi, 331.—Sea Cliff, N. Y. Also occurs in N. M.
—Banks.
ALDRICH, 21st Rept. Geol. Indiana, 1896, 188, oc. in a cavern, Ind.
HOWARD, Canad. Ent., xxxiii, 43, oc. in Va.; bred from cowdung.
White Mts., N. H.—Slosson.
- nigra** BANKS, Canad. Ent., xxvi, 331.—Sea Cliff, N. Y. Also reported from Va.
—Banks.
- nitida** BANKS, Canad. Ent., xxxiii, 275.—D. C.
- opposita** BANKS, Canad. Ent., xxxiii, 274.—D. C.
- pallens** WILLISTON, Dipt. St. Vincent, 283, pl. ix, f. 50.—St. Vincent, W. I.
- punctatella** TOWNSEND, Annals and Mag. Nat. Hist., xix, 19.—Vera Cruz.
- schizura** KINCAID, Ent. News, x, 32, f. 9.—Seattle Wash.
- sigma** KINCAID, Ent. News, x, f. 1.—Olympia, Wash.
- signata** BANKS, Canad. Ent., xxxiii, 274.—D. C.
- slossoni** WILLISTON, Ent. News, iv, 114.—Watkins Glen, N. Y.
BANKS, Canad. Ent., xxvi, 324, male.—N. Y.
- superba** BANKS, Canad. Ent., xxvi, 332 (Sea Cliff, N. Y.); xxxiii, 275, oc. in D. C., "on the bark of large trees."

SYCORAX.

- CURTIS, Brit. Entomol., 745, 1839.
- SCHINER, Fauna Austr., ii, 631, 1864.
- KINCAID, Ent. News, x, 30, part. desc.
- lanceolata** KINCAID, Ent. News, x, 35, f. 11, 12.—Palo Alto and Santa Cruz Mts., Cal.; Almota, Wash.

TRICHOMYIA.

- CURTIS, Brit. Ent., 745, 1839.
- SCHINER, Fauna Austr., ii, 631, 1864.
- cirrata** COQUILLETT, Jour. N. Y. Ent. Soc., x, 137.—Frontera in Tabasco, Mex.

CHIRONOMIDÆ.

STENOXENUS.

- COQUILLETT, Ent. News, x, 60, 1899.
- johnsoni** COQUILLETT, loc. cit., fig.—Delaware Water Gap, N. J.
- Note.*—Mr. Coquillett has founded a new family upon this species, which he calls Stenoxenidæ. As but a single female specimen with the antennæ broken off has as yet come to light, and it is admittedly related to *Ceratopogon*, it would seem decidedly premature to recognize this family.

TERSESTHES.

- TOWNSEND, Psyche, Jan., 1893, 371.
- torrens** TOWNSEND, loc. cit., plate.—Socorro Co., N. M.; the females suck blood.

CERATOPOGON.

- MEIGEN, Illig. Mag., ii, 261, 1803; Syst. Besch., i, 70, 1818.
- ZETTERSTEDT, Dipt. Scand., ix, 3629, 1850.
- WINNERTZ, Linnæa Ent., vi, 1851, pp. 1-80; this is the classic monograph of the European species.
- SCHINER, Fauna Austr., ii, 574, 1864.

- MIK, Wien, Ent. Zeitung, 1888, 183, and 1894, 23, life history of European species.
- WILLISTON, Dipt. St. Vincent, in Trans. Ent. Soc. Lond., 1896, 276, table of species from St. Vincent.
- COQUILLETT, Proc. U. S. N. M., XXIII, 599, table of new spp.
- HOWARD, Proc. Wash. Acad. Sci., II, 559, notes on larval habits; one species reared from human excrement.
- LUGGER, 2d Rept. Ent. Minn., 1896, 171, fig., notes on, attacking man.
- MEINERT, Eucephale Myggelarver, 464, pl. IV, f. 128-137, an excellent study of the transformations of *C. circumdatum*, a European species.
- albarius** COQUILLETT, Proc. Acad. Nat. Sci., 1895, 308.—Fla.
N. J.—Smith Cat.
- albiventris** LOEW, Cent., I, 7.—Ga.
N. J.—Smith Cat.
- ancorus** COQUILLETT, Proc. U. S. N. M., XXV, 87.—Biscayne Bay, Fla.
- antennalis** COQUILLETT, Proc. U. S. N. M., XXIII, 606.—D. C.
- arcticus** COQUILLETT, Proc. Wash. Acad. Sci., II, 396.—Popoff Id., Alaska.
- argentatus** LOEW, Cent., I, 5.—D. C.
N. J.—Smith Cat.; Welaka, Fla.—Johnson.
- barberi** COQUILLETT, Proc. U. S. N. M., XXIII, 601.—Chesapeake Beach, Md.
- basalis** WALKER, List, I, 27.—Trenton Falls, N. Y.
- bellus** COQUILLETT, Proc. U. S. N. M., XXV, 87.—D. C.
- biguttatus** COQUILLETT, Proc. U. S. N. M., XXIII, 604.—D. C.
- bimaculatus** LOEW, Cent., I, 6.—D. C.
- brumalis** LONG, Biol. Bull., 1902, 3; larva, pupa and adult. I have not seen this paper, and am unable to give the locality.
- cilipes** COQUILLETT, Proc. Wash. Acad. Sci., II, 397.—Muir Inlet, Glacier Bay, Alaska.
- cinctus** COQUILLETT, Proc. U. S. N. M., XXIII, 605.—Lake Worth and Biscayne Bay, Fla.; bites human beings.
- cockerelli** COQUILLETT, Proc. U. S. N. M., XXIII, 603.—Custer Co., Col.
- decor** WILLISTON, Dipt. St. Vincent, 281, pl. IX, f. 45.—St. Vincent, W. I.
- diversus** COQUILLETT, Proc. U. S. N. M., XXIII, 607.—Riverton, N. J.
- dimidiatus** ADAMS, Kans. Univ. Sci. Bull., II, 27.—Grand Canon, Ariz.
- elegans** COQUILLETT, Proc. U. S. N. M., XXIII, 599.—Riverton, N. J.
- eriophorus** WILLISTON, Dipt. St. Vincent, 279, pl. IX, f. 40.—St. Vincent, W. I.
- exilis** COQUILLETT, Proc. U. S. N. M., XXV, 86.—D. C.
- expolitus** COQUILLETT, Proc. U. S. N. M., XXIII, 600.—Riverton, N. J.
- femoratus** MEIGEN, Klassif., II, 28, 1804; Syst. Besch., I, 83.—Europe.
FABRICIUS, Syst. Anth., 45, 1805 (*Chironomus*).
LATREILLE, Gen. Crust., IV, 250.
MACQUART, Hist. Nat. Dipt., I, 67.
STAEGER, Kröyer's Nat. Tidsskr., II, 1830, 598.
ZETTERSTEDT, Dipt. Scand., IX, 3665.
WINNERTZ, Mon., 68.
SCHINER, Fauna Austr., II, 584.
COQUILLETT, Proc. Wash. Acad. Sci., II, 396, oc. in N. A.—Popoff Id., Alaska.
- festivus** LOEW, Cent., I, 13.—Pa.
N. J.—Smith Cat.
- fimbriatus** COQUILLETT, Proc. U. S. N. M., XXIII, 601.—D. C.
- flavipes** MEIGEN, Syst. Besch., I, 82; loc. cit., I, 81 (*hortulanus*).—Europe.

WINNERTZ, Mon., 58. SCHINER, Fauna Austr., II, 585.

N. J.—Smith Cat.

flavus WILLISTON, Dipt. St. Vincent, 280, pl. IX, f. 42.—St. Vincent, W. I.

fuscus COQUILLETT, Proc. U. S. N. M., XXIII, 605.—D. C., N. J., N. H., Me.

genualis LOEW, Cent., VI, 1.—Cuba.

glaber COQUILLETT, Proc. U. S. N. M., XXV, 85.—Biscayne Bay, Fla.

griseus COQUILLETT, Proc. U. S. N. M., XXIII, 602.—D. C., Fla.

guttipennis COQUILLETT, Proc. U. S. N. M., XXIII, 603.—Medina, Ohio.

hirtulus COQUILLETT, Proc. Wash. Acad. Sci., II, 396.—Virgin Bay, Prince William Sound, Alaska.

hollensis MELANDER and BRUES, Biol. Bull., V, 13, 1903.—Woods Holl, Mass.

inermis COQUILLETT, Proc. U. S. N. M., XXV, 86.—Yavapai Co., Ariz.

johnsoni COQUILLETT, Proc. U. S. N. M., XXIII, 600.—Riverton, N. J.

lacteipennis ZETTERSTEDT, Ins. Lapp., 810; Dipt. Scand., IX, 3639.—Europe.

WINNERTZ, Mon., 49. SCHINER, Fauna Austr., II, 584.

LUNDBECK, Dipt. Groenlandica, I, 270, oc. in Greenland.

levis COQUILLETT, Proc. U. S. N. M., XXIII, 604.—Marlboro, N. J.

lineatus MEIGEN, Syst. Besch., I, 80.—Europe.

WINNERTZ, Mon., 63. STAEGER, Dipt. Dan., 595.

ZETTERSTEDT, Dipt. Scand., IX, 3655.

SCHINER, Fauna Austr., II, 587.

LOEW, Silliman's Jour., oc. in N. A.

N. J.—Smith Cat.

lituratus WILLISTON, Dipt. St. Vincent, 281.—St. Vincent, W. I.

longicornis WILLISTON, Dipt. St. Vincent, 280, pl. IX, f. 43.—St. Vincent, W. I.

longipennis LOEW, Cent., I, 10.—Pa.

N. J.—Smith Cat.

lotus WILLISTON, Dipt. St. Vincent, 282, pl. IX, f. 47.—St. Vincent, W. I.

maculithorax WILLISTON, Dipt. St. Vincent, 277, pl. IX, f. 36.—St. Vincent, W. I.

melleus COQUILLETT, Proc. U. S. N. M., XXIII, 604.—Lake Worth, Fla.

mundus COQUILLETT, see *smithii*.

mutabilis COQUILLETT, Proc. U. S. N. M., XXIII, 602.—D. C., Fla.

nebulosus COQUILLETT, Proc. U. S. N. M., XXIII, 606.—Riverton, N. J.

nocivum HARRIS, Ins. Inj. Vag., 602 (*Simulium*). Mass. 3 lines desc. Gen. ref. in O. S. Cat., 14.

obscurus WALKER, List, I, 26.—Martin Falls, Canada.

opacus LOEW, Cent., I, 9.—D. C.

pachymerus WILLISTON, Biologia, Dipt., Suppl., 224.—Vera Cruz, Mex.

parvus WALKER, List, I, 26.—Martin Falls, Canada.

pergandei COQUILLETT, Proc. U. S. N. M., XXIII, 602.—D. C.

phlebotomus WILLISTON, Dipt. St. Vincent, 281, pl. IX, f. 46.—St. Vincent, W. I.

pilosulus COQUILLETT, Proc. U. S. N. M., XXV, 87.—D. C.

plebeius LOEW, Cent., I, 11.—Pa.

N. J.—Smith Cat.

politus COQUILLETT, Proc. U. S. N. M., XXIII, 606.—Cambridge, Mass.

propinquus WILLISTON, Dipt. St. Vincent, 279, pl. IX, f. 41.—St. Vincent, W. I.

pulvereus COQUILLETT, Proc. U. S. N. M., XXIII, 600.—Riverton, N. J., and D. C.

punctipennis WILLISTON, Dipt. St. Vincent, 278, pl. IX, f. 39.—St. Vincent, W. I.

COQUILLETT, Proc. U. S. N. M., XXII, 250, oc. in Porto Rico.

pygmæus WILLISTON, Dipt. St. Vincent, 278, pl. IX, f. 37.—St. Vincent, W. I.

rufus LOEW, Cent., I, 12.—Pa.

N. J.—Smith Cat.

- sanguisuga** COQUILLETT, Proc. U. S. N. M., XXIII, 604.—Marlboro, Md.; bites human beings.
- scutellatus** MEIGEN, Syst. Besch., VI, 262, 1830.—Europe.
WINNERTZ, Mon., 44.
SCHINER, Fauna Austr., II, 582.
LUNDBECK, Dipt. Groenlandica, I, 270, oc. in Greenland.
- scutellatus** SAY, Jour. Acad. Sci. Phil., VI, 150, 1829; Compl. Works, II, 349.—Ind.
- schwarzii** COQUILLETT, Proc. U. S. N. M., XXIII, 605.—Sharpsburg, Tex.
- sequax** WILLISTON, Dipt. St. Vincent, 282, pl. IX, f. 48.—St. Vincent, W. I.
COQUILLETT, Proc. U. S. N. M., XXII, 250, oc. in Porto Rico.
- setulosus** LOEW, Cent., I, 8.—D. C.
N. J.—Smith Cat.
- smithii** COQUILLETT, Proc. U. S. N. M., XXIII, 600.—Riverton, N. J. Mentioned in Smith's Cat. as *C. mundus*, a manuscript name (Coquillett in litt.).
- sordidellus** ZETTERSTEDT, Ins. Lapp., 820; Dipt. Scand., IX, 3640.—N. Europe.
STAEGER, Groenl. Antliater, oc. in Greenland.
O. FABRICIUS, Fauna Groenlandica (*Culex pulicans*—misprint for *pulicaris*). [Schiödte.]
- specularis** COQUILLETT, Proc. U. S. N. M., XXIII, 601.—Pa., D. C., Col.
HOWARD, Canad. Ent., XXXIII, 43, oc. in Va.; bred from cowdung.
LONG, Biol. Bull., 1902, 7; larva, pupa and adult.
- squamipes** COQUILLETT, Proc. U. S. N. M., XXV, 88.—Las Vegas Hot Springs, N. M.
- stellifer** COQUILLETT, Proc. U. S. N. M., XXIII, 604.—D. C.
- stenammatis** LONG, Biol. Bull., 1902, 10.
- stigmalis** COQUILLETT, Proc. U. S. N. M., XXV, 86.—Las Vegas Hot Springs, N. M.
- subasper** COQUILLETT, Proc. U. S. N. M., 603.—Marlboro, Md., and Mesilla Park, N. M.
- texanus** LONG, Biol. Bull., 1902, 10; larva, pupa and adult.—Texas.
- thersites** WILLISTON, Dipt. St. Vincent, 280, pl. IX, f. 44.—St. Vincent, W. I.
- tibialis** MEIGEN, Syst. Besch., I, 82.—Europe.
WINNERTZ, Mon., 65. SCHINER, Fauna Austr., II, 586.
N. J.—Smith Cat.
- transiens** WALKER, List, I, 25.—Martin Falls, Canada.
N. J.—Smith Cat.
- trivialis** LOEW, Cent., I, 4.—D. C.
N. J.—Smith Cat.
- varicolor** COQUILLETT, Ent. News, XIII, 84.—Bellport, Long Id., N. Y.
- variipennis** COQUILLETT, Proc. U. S. N. M., XXIII, 602.—N. J., Va., and Mexico City.
- venustus** WILLISTON, Dipt. St. Vincent, 278, pl. IX, f. 38.—St. Vincent, W. I.
- viridis** COQUILLETT, Proc. U. S. N. M., XXIII, 607.—Riverton, N. J.
- websteri** COQUILLETT, Proc. U. S. N. M., XXIII, 603.—Ashwood, La.
- wheeleri** LONG, Biol. Bull., 1902, 12; larva and pupa only.

HETEROMYIA.

- SAY, N. A. Ent., II, 1825; Compl. Works, I, 79, pl. XXV.
- OSTEN SACKEN, note in Say's Compl. Works, I, 80; Cat., 23. observation on validity.
- clavata** WILLISTON, Biologia, Dipt. Suppl., 225.—Vera Cruz, Mex.
- fasciata** SAY, Amer. Ent., II; Complete Works, I, 80, pl. XXXV.—No locality. Atl. States (O. S.); N. J. (Smith Cat.).
- prattii** COQUILLETT, Proc. U. S. N. M., XXV, 88.—St. Elmo, Va.

CORYNONEURA.

WINNERTZ, Ent. Zeit. v. Stett., VII, 12, 1846.

SCHINER, Fauna Austriaca, II, 594, 1864.

atra WINNERTZ, Ent. Zeit. v. Stett., XIII, 50.—Europe.

SCHINER, Fauna Austr., II, 594.

LUNDBECK, Dipt. Groenl., I, 270, oc. in Greenland.

celeripes WINNERTZ, Ent. Zeit. v. Stett., XIII, 50.—Europe.

SCHINER, Fauna Austr., II, 594.

LUNDBECK, Dipt. Groenl., I, 271, oc. in Greenland.

CHIRONOMUS.

MEIGEN, Illig. Mag., II, 260, 1803; Syst. Besch., I, 19, 1818.

ZETTERSTEDT, Dipt. Scand., IX, 3475, 1850.

SCHINER, Fauna Austr., II, 595, 1864.

WILLISTON, Dipt. St. Vincent, 273, 1806, table of St. Vincent spp.

MEINERT, Eucephale Myggelarver, 435, 1886, gives the older literature of the transformations, with notes on same; also an excellent account of the different stages of *Ch. venustus* and *motillator*, European species.

JOHANNSEN, Bull. 68, N. Y. State Mus., 433, 1903, describes and figures a larva of an undet. species which is an important food for trout in the Adirondacks, N. Y.

OSBORN, Bull. 32, Iowa Experiment Station, 405-407, figures an undet. species occurring in water tanks and reservoirs.

albistria WALKER, List, I, 17.—Martin Falls, Canada.

anonymus WILLISTON, Dipt. St. Vincent, 274.—St. Vincent, W. I.

anticus WALKER, List, I, 21.—Ga.

aterrimus STAEGER, nec Meigen, see *ursinus*.

atomarius ZETTERSTEDT, see *Orthocladus*.

atratus ZETTERSTEDT, see *Metriocnemus*.

atrimanus COQUILLETT, Proc. U. S. N. M., XXV, 94.—Kansas City, Mo.

attenuatus WALKER, List, I, 20.—Martin Falls, Canada.

White Mts., N. H.—Slosson; but the original description is meaningless.

basalis STAEGER, Groenl. Antl., 351.—Greenland.

HOLMGREN, Ins. Nordgroenl., 105.

LUNDBECK, Dipt. Groenl., I, 279, oc.

bimacula WALKER, List, I, 15.—Martin Falls, Canada.

borealis CURTIS, Insects of Ross's Voyage, LXXVII.—Arctic America.

brachialis COQUILLETT, Proc. U. S. N. M., XXIII, 607.—Westville, N. J.

brevitibialis ZETTERSTEDT, Dipt. Scand., IX, 3537.—N. Europe.

SCHINER, Fauna Austr., II, 605.

LUNDBECK, Dipt. Groenl., I, 273, oc. in Greenland.

brunneus WALKER, List, I, 21.—Martin Falls, Canada.

N. J.—Smith Cat.; White Mts., N. H.—Mrs. Slosson; Beulah, N. M.—Skinner. In spite of these identifications, I consider the description quite unrecognizable.

byssinus, see *Camptocladus*.

chloris MEIGEN, Syst. Besch., I, 28.—Europe.

STAEGER, Dipt. Dan., 1840, 564.

ZETTERSTEDT, Dipt. Scand., IX, 3511. SCHINER, Fauna Austr., II, 604.

VAN DER WULP, Tijdschr. v. Ent., sec. ser., II, 126, oc. in N. A.—Wis.

claripennis LUNDBECK, see *Orthocladus*.

confinis WALKER, List, I, 15.—Martin Falls, Canada.

crassicollis WALKER, List, I, 18.—Martin Falls, Canada.

- cristatus** FABRICIUS, Syst. Ant., 39.—N. Y.
 WIEDEMANN, Auss. Zw., I, 14.
 MACQUART, Hist. Nat. Dipt., I, 50.
 N. J.—Smith Cat.; Montreal—Chagnon.
- debilipennis** LUNDBECK, see *Metriocnemus*.
- devinctus** SAY, Jour. Acad. Sci. Phil., VI, 150; Compl. Works, II, 349.—Ind.
- difficilis** LUNDBECK, see *Orthocladus*.
- dispar** MEIGEN, Syst. Besch., VI, 247.—Europe.
 ZETTERSTEDT, Dipt. Scand., IX, 3506; loc. cit., 3509 (*lucidus*).
 STAEGE, Kröyer's Tidsskr., II, 569.
 SCHINER, Fauna Austr., II, 604.
 N. J.—Smith Cat.
- dorsalis** MEIGEN, Syst. Besch., I, 25.—Europe.
 SCHINER, Fauna Austr., II, 605.
 MIALl and HAMMOND, Trans. Linn. Soc. Lond., ser. 2, v, pl. XXIX-XXXI, 1893.
 Identified from Market Lake, Idaho—Johannsen *in litt*.
- extremus** HOLMGREN, see *Camptocladus*.
- fascipennis** ZETTERSTEDT, Ins. Lapp., 813; Dipt. Scand., IX, 3505.—N. Europe.
 SCHINER, Fauna Austr., II, 599.
 N. J.—Smith Cat.; Montreal—Chagnon.
- festivus** SAY, Jour. Acad. Sci. Phil., III, 13; Compl. Works, II, 41.—Ill.
 WIEDEMANN, Analecta Ent., 10; Auss. Zw., I, 16.
 White Mts., N. H.—Slosson.
- fimbriatus** WALKER, List, I, 20.—Martin Falls, Canada.
- flavicingula** WALKER, List, I, 20.—Martin Falls, Canada.
- frigidus** ZETTERSTEDT, of Staeger, see *Orthocladus pubitarsis*.
- fuscipes** MEIGEN, see *Metriocnemus*.
- geminatus** SAY, see *Cricotopus*.
- graminicola** LUNDBECK, see *Camptocladus*.
- halteralis** COQUILLETT, Ent. News, XII, 17.—D. C.
 HOWARD, Proc. Acad. Sci. Wash., II, 559, adult collected on excrement.
- hyperboreus** STAEGE, Groenl. Antl., 349 (in part).—Greenland.
 SCHIÖDTE, Rink's Greenland, Suppl., 67 (*polaris*) [Lundbeck].
- incomptus** ZETTERSTEDT, see *Metriocnemus*.
- innocuus** WILLISTON, Dipt. St. Vincent, 274.—St. Vincent, W. I.
- intermedius** STAEGE, Kröyer's Tidsskr., II, 559.—Europe.
 ZETTERSTEDT, Dipt. Scand., IX, 3484.
 OSTEN SACKEN, Cat., 20, oc. in N. W. of N. A., and note.
- jucundus** WALKER, List, I, 16.—Ga.
 N. J.—Smith Cat.
- junci** MEIGEN, see *Tanytarsus*.
- lasiomerus** WALKER, List, I, 19.—Martin Falls, Canada.
- lasiopus** WALKER, List, I, 19.—Martin Falls, Canada.
- lineatus** SAY, Jour. Acad. Sci. Phil., III, 14; Compl. Works, II, 42.—Pa.
 WIEDEMANN, Auss. Zw., I, 17 (name unnecessarily changed to *lineola*).
 N. J.—Smith Cat.; Montreal—Chagnon (both *lineola*).
- lobiferus** SAY, Jour. Acad. Sci. Phil., III, 12; Compl. Works, II, 41.—Pa.
 WIEDEMANN, Auss. Zw., I, 16.
 MACQUART, Hist. Nat. Dipt., I, 50.
- longimanus** WILLISTON, Dipt. St. Vincent, 274, pl. IX, f. 33.—St. Vincent, W. I.
- lugubris** WILLISTON, Dipt. St. Vincent, 274.—St. Vincent, W. I.
- minimus** MEIG., see *Camptocladus*.

minutus ZETTERSTEDT, see *Orthocladius*.

modestus SAY, Jour. Acad. Sci. Phil., III, 13; Compl. Works, II, 41.—Pa.

WIEDEMANN, AUSS. ZW., I, 18.

N. J.—Smith Cat.; Montreal—Chagnon; White Mts., N. H.—Slosson.

White Mts., N. H.—Slosson.

nigritibia WALKER, List, I, 16.—Martin Falls, Canada.

nitidulus COQUILLETT, Proc. U. S. N. M., XXIII, 608.—Riverton, N. J.

niveipennis FABRICIUS, Syst. Antl., 42.—Europe.

MEIGEN, Syst. Besch., VI, 254 (*pilicornis*).

ZETTERSTEDT, Dipt. Scand., IX, 3566. SCHINER, Fauna Austr., II, 593.

JOHNSON, Proc. Acad. Nat. Sci. Phil., 1895, 320, oc. at Charlotte Harbor, Fla.

nivoriundus FITCH, see *Orthocladius*.

oceanicus PACKARD, Proc. Essex. Inst., VI, 42, figs. larva, etc.—Salem, Mass.

octopunctatus LOEW, Wien. Ent. Monatschr., V, 33.—Cuba.

palliatus COQUILLETT, Proc. U. S. N. M., XXV, 95.—D. C.

parvus LUNDBECK, see *Camptocladius*.

pedellus LINNÉ, Fauna Suec., No. 1759 (var. of *Tipula littoralis*).—Europe.

DEGEER, Ins., VI, 378, pl. XIX, f. 12, 13 (*Tipula*).

FABRICIUS, Ent. Syst., IV, 247; Syst. Antl., 45 (both *Chir. cantans*).

MEIGEN, Syst. Besch., I, 23. STAEGE, Dipt. Dan., 564.

ZETTERSTEDT, Ins. Lapp., 814; Dipt. Scand., IX, 3535.

VAN DER WULP, Tijdsch. v. Ent., II, 126, oc. in N. A.

N. J.—Smith Cat.; Montreal—Chagnon.

pedestris MEIGEN, Syst. Besch., VI, 246.—Europe.

SCHINER, Fauna Austr., II, 606.

N. J.—Smith Cat.

pellucidus WALKER, List, I, 21.—Martin Falls, Canada.

picipes MEIG., see *Metriocnemus fuscipes*.

plumosus LINNÉ, Fauna Suec., 434; Syst. Nat., II, 974 (*Tipula*).—Europe.

FABRICIUS, Ent. Syst., IV, 242 (*Tipula*); Syst. Antl., 37.

GEOFFROY, Ins., II, 560.

GOEDART, Ins., III, pl. X.

MEIGEN, Klassif., II, pl. I, f. 19; Syst. Besch., I, 20.

MACQUART, Hist. Nat. Dipt., I, 48.

STAEGE, Dipt. Dan., 557.

ZETTERSTEDT, Ins. Lapp., 809; Dipt. Scand., IX, 3481.

SCHINER, Fauna Austr., II, 601.

OSTEN SACKEN, Cat., 21, oc. in N. A. (Mackenzie Riv., Canada.)

RILEY, Rept. Dept. of Ag., 1886, oc. in N. Y.

polaris KIRBY, Suppl. to Parry's First Voyage; CURTIS, Ins. of Ross's Voyage, LXXVII, pl. A, f. 2 and 14.—Arctic America; Greenland. (Unrecognizable—Lundbeck.)

pubitarsis ZETTERSTEDT, see *Orthocladius*.

pulchripennis COQUILLETT, Proc. U. S. N. M., XXV, 94.—Franconia, N. H.

pumilio HOLMGREN, see *Camptocladius*.

redeuns WALKER, Dipt. Saund., 422.—U. S.

COQUILLETT, Proc. U. S. N. M., XXII, 250, oc. in Porto Rico.

riparius MEIGEN, Syst. Besch., I, 23.—Europe.

STAEGE, Groenl. Antliater, 350 (*turpis* ZETT.), oc. in Greenland [Ldbk.].

ZETTERSTEDT, Ins. Lapp., 810; Dipt. Scand., IX, 3489.

SCHINER, Fauna Austr., II, 603.

- VAN DER WULP, Tijdschr. v. Ent., II, 126, oc. in N. A.—Wis.
 LUNDBECK, Dipt. Groenl., I, 272, oc. in Greenland.
 White Mts., N. H.—Slosson; Charlotte Harbor, Fla.—Johnson.
scalænus SCHANK, Fauna Boica, III, 2324, 1803.—Europe.
 ZETTERSTEDT, Dipt. Scand., IX, 3501.
 SCHINER, Fauna Austr., II, 600.
 MRS. SLOSSON, Ent. News, XIII, 320, 1902, oc. in White Mts., N. H.
spilopterus WILLISTON, Trans. Ent. Soc. Lond., 1896, 273, pl. IX. f. 32.—St. Vincent, W. I.
staegeri LUNDBECK, Dipt. Groenl., I, 271.—Greenland.
 STAEGER, Groenl. Antliater, 394 (*hyperboreus* var.).—Greenland.
 ZETTERSTEDT, Ins. Lapp., 809 (*annularis*, the Greenland specimens); Dipt. Scand., IX, 3487 (*hyperboreus*).—Greenland.
stercorarius DEGEER, see *Orthocladius*.
stigmaterus SAY, Jour. Acad. Sci. Phil., III, 15; Compl. Works, II, 42.—U. S.
 WIEDEMANN, Auss. Zw., I, 15 (name changed unnecessarily to *glaucuruse*).
 Atlantic States—O. S.
sylvestris FABRICIUS, see *Cricotopus*.
tæniapennis COQUILLETT, Proc. U. S. N. M., XXIII, 607.—Mass and N. J.
 Province of Quebec—Fyles.
tænionotus SAY, Jour. Acad. Sci. Phil., VI, 149; Compl. Works, II, 349.—Ind.
tendens FABRICIUS, Ent. Syst., IV, 243 (*Tipula*); Syst. Antl., 39.—Europe.
 MEIGEN, Classification, I, 33 (*Ceratopogon*); Syst. Besch., I, 34.
 ZETTERSTEDT, Dipt. Scand., IX, 3525.
 SCHINER, Fauna Austr., II, 605.
 N. J.—Smith Cat.; Montreal—Chagnon.
tentans FABRICIUS, Syst. Antl., 38.—Europe.
 SCHINER, Fauna Austr., II, 603.
 Identified from S. D., Ida. and Utah—Johannsen in litt.
tenuis MEIGEN, see *Tanytarsus*.
tremulus LINNÉ, see *Cricotopus*.
trichomerus WALKER, List, I, 21.—Martin Falls, Canada.
tricinctus MEIGEN, see *Cricotopus*.
unicolor WALKER, List, I, 19.—Nova Scotia.
ursinus HOLMGREN, see *Metriocnemus*.
variabilis STAEGER, see *Orthocladius*.
varipennis COQUILLETT, Proc. U. S. N. M., XXV, 94.—Las Vegas Hot Springs, N. M.
velutinus LUNDBECK, see *Camptocladius*.
viridis MACQUART, Hist. Nat. Dipt., I, 52.—Europe.
 STAEGER, Dipt. Dan., 565.
 ZETTERSTEDT, Ins. Lapp., 814 (*vulneratus*); Dipt. Scand., IX, 3531.
 SCHINER, Fauna Austr., II, 605.
 White Mts., N. H.—Slosson; Charlotte Harbor, Fla.—Johnson.

TELMATOGETON.

- SCHINER, Novara, 25, 1868, pl. II, f. 1.
alaskensis COQUILLETT, Proc. Wash. Acad. Sci., II, 395.—Yakutat, Alaska.
 Newport, Ore.—J. M. A.

ORTHOCLADIUS.

- VAN DER WULP, Tijdschr. v. Ent., XVII, 132, 1874.
atomarius ZETTERSTEDT, Dipt. Scand., IX, 3590 (*Chironomus*).—Europe.

SCHINER, Fauna Austr., II, 609 (*id.*).

LUNDBECK, Dipt. Groenl., I, 283, oc. in Greenland (*id.*).

barbicornis LINNÉ, Syst. Nat., 12th ed., II, 974 (*Tipula*).—Europe.

SCHINER, Fauna Austr., II, 612 (*Chironomus*).

Identified from U. S.—Johannsen in litt.

claripennis LUNDBECK, Dipt. Groenl., I, 281 (*Chironomus*).—Greenland.

clepsydra COQUILLETT, Proc. U. S. N. M., XXV, 92.—Las Vegas Hot Springs, N. M.

debilis WILLISTON, Trans. Ent. Soc. Lond., 1896, pl. IX, f. 34.—St. Vincent, W. I.

difficilis LUNDBECK, Dipt. Groenl., I, 282 (*Chironomus*).—Greenland.

frigidus ZETTERSTEDT, of Staeger, see *pubitarsis*.

minutus ZETTERSTEDT, Dipt. Scand., IX, 3522 (*Chironomus*).—N. Europe.

LUNDBECK, Dipt. Groenl., I, 281, oc. in Greenland (*id.*).

nivoriundus FITCH, see *Diamesa xanthii*.

par COQUILLETT, Proc. U. S. N. M., XXIII, 608.—Riverton, N. J.

Axon, N. Y.—M. & H.

platypus COQUILLETT, Proc. U. S. N. M., XXV, 95.—Flagstaff, Ariz.

politus COQUILLETT, Proc. U. S. N. M., XXV, 93.—D. C.

pubitarsis ZETTERSTEDT, Ins. Lapp., 811; Dipt. Scand., IX, 3514 (*Chironomus*).—N. Europe.

STAEGE, Groenl. Antl., 351 (*Chironomus frigidus* ZETT.).—Greenland.

LUNDBECK, Dipt. Groenl., I, 280, oc. in Greenland; correction of Staeger, etc. (*Chironomus*).

Note.—Holmgren also recognized a *Ch. frigidus* from Greenland, which I presume belongs here.

stercorarius DEGEER, Mém. pour Serv. Hist. Nat. Ins., VI, 388, pl. XXII and XXIII (*Tipula*).—N. Europe; larva and pupa also included.

MEIGEN, Syst. Besch., I, 46 (*Chironomus*).

STAEGE, Dipt. Dan., 578 (*id.*).

ZETTERSTEDT, Ins. Lapp., 815; Dipt. Scand., IX, 3571 (*id.*).

SCHINER, Fauna Austr., II, 612 (*id.*).

HOLMGREN, Ins. Nordgroenl., 105, oc. in Greenland (*id.*).

LUNDBECK, Dipt. Groenl., I, 277, oc. in Greenland (*id.*).

variabilis STAEGE, Dipt. Dan., 571 (*Chironomus*); Groenl. Antl., 351, oc. in Greenland (*id.*).—Denmark.

ZETTERSTEDT, Dipt. Scand., IX, 3519 (*id.*).

White Mts., N. H.—Slosson.

CAMPTOCLADIUS.

VAN DER WULP, Tijdschr. v. Ent., XVII, 133, 1874.

byssinus SCHRANK, Fauna Boica, III, 2330 (*Tipula*).—Europe.

MEIGEN, Syst. Besch., I, 46 (*Chironomus*).

STAEGE, Dipt. Dan., 578; Groenl. Antl., 352 (*id.*).—Europe and Greenland.

ZETTERSTEDT, Ins. Lapp., 815; Dipt. Scand., IX, 3572 (*id.*).

SCHINER, Fauna Austr., II, 612 (*id.*).

LUNDBECK, Dipt. Groenl., I, 273, oc. in Greenland (*id.*).

HOWARD, Canad. Ent., XXXIII, 43, reared from cowdung.—Va. N. J.—Smith Cat.

extremus HOLMGREN, Kongl. Vet. Akad., 1869, 40 (*Chironomus*).—Europe.

LUNDBECK, Dipt. Groenl., I, 176, oc. in Greenland (*id.*).

graminicola LUNDBECK, Dipt. Groenl., I, 278 (*Chironomus*).—Greenland.

- minimus** MEIGEN, Syst. Besch., 1, 47 (*Chironomus*).—Europe.
 ZETTERSTEDT, Dipt. Scand., ix, 3573 (id.).
 SCHINER, Fauna Austr., II, 612 (id.).
 HOWARD, Canad. Ent., xxxiii, 43, bred from cowdung.—Va. N. J.—Smith Cat.
- parvus** LUNDBECK, Dipt. Groenl., Dipt., 1, 275 (*Chironomus*).—Greenland.
- pumilio** HOLMGREN, Ins. Spetsb., 41; Ins. Nordgroenl., 105 (*Chironomus*).—Spitzbergen; Greenland.
- LUNDBECK, Dipt. Groenl., 1, 276, oc. in Greenland (id.).
- velutinus** LUNDBECK, Dipt. Groenl., 1, 274 (*Chironomus*).—Greenland.

METRIOCNEMUS.

- VAN DER WULP, Tijdschr. v. Ent., xvii, 136, 1874.
- atratus** ZETTERSTEDT, Dipt. Scand., ix, 3590 (*Chironomus*).—N. Europe.
 SCHINER, Fauna Austr., II, 608 (id.).
 LUNDBECK, Dipt. Groenl., 1, 285, oc. in Greenland (id.).
- debilipennis** LUNDBECK, Dipt. Groenl., 1, 286 (*Chironomus*).—Greenland.
- fuscipes** MEIGEN, Syst. Besch., 1, 49 (*Chironomus*); 52 (*Chir. picipes*).—Europe.
 ZETTERSTEDT, Dipt. Scand., ix, 3578 (*Ch. fuscipes*).
 SCHINER, Fauna Austr., II, 607 (id.).
 LUNDBECK, Dipt. Groenl., 1, 284, oc. in Greenland (id.).
- incomptus** ZETTERSTEDT, Ins. Lapp., 816 (*Chironomus*); Dipt. Scand., ix, 3586 (id.).—N. Europe.
 SCHINER, Fauna Austr., II, 607 (id.).
 LUNDBECK, Dipt. Groenl., 1, 285, oc. in Greenland.
- ursinus** HOLMGREN, Kongl. vet. Akad., 1869, 39 (*Chironomus*).—Europe.
 STAEGE, Groenl. Antl., 353 (*aterrimus* MEIG.), oc. in Greenland.
 LUNDBECK, Dipt. Groenl., 1, 284, oc. in Greenland, and cor. of Staeger.
- Note.*—Whether the *aterrimus* of Mrs. Slosson's List, from the White Mts., is the same, I am unable to state.

CRICOTOPUS.

- VAN DER WULP, Tijdsch. v. Ent., xvii, 132, 1874.
- geminatus** SAY, Jour. Acad. Sci. Phil., III, 14; Compl. Works, II, 42 (*Chironomus*).—Pa.
 N. J.—Smith Cat.; gen. ref. by Coquillett.
- sylvestris** FABRICIUS, Ent. Syst., IV, 252 (*Tipula*); Syst. Antl., 47 (*Chironomus*).—Europe.
 SCHINER, Fauna Austr., II, 611 (id.).
 Smith Cat., oc. in N. J., where the larvæ injure leaves of *Victoria regia*.
 JOHNSON, Ent. News, XII, 30, note on same case.
 PETTIT, Mich. Acad. Sci., 1900, 110, mentions a "*Chironomus* sp." devouring leaves of water lily (*Nymphaea odorata* and *advena*) at Lansing, Mich., and gives plate; it may be this species.
- tremulus** LINNÉ, Fauna Suecica, 1762 (*Tipula*).—Europe.
 MEIGEN, Syst. Besch., 1, 45 (*Chironomus*).
 ZETTERSTEDT, Dipt. Scand., ix, 3562 (id.).
 SCHINER, Fauna Austr., II, 611 (id.).
 N. J.—Smith Cat.; gen. ref. by Coquillett.
- tricinctus** MEIGEN, Syst. Besch., 1, 41 (*Chironomus*).—Europe.
 MACQUART, Hist. Nat. Dipt., I, 56 (id.).
 STAEGE, Dipt. Dan., 576 (id.).

ZETTERSTEDT, Dipt. Scand., IX, 3555 (id.).

SCHINER, Fauna Austr., II, 610 (id.).

OSTEN SACKEN, Cat., 21, oc. in N. A., on authority of Loew.

White Mts., N. H.—Slosson.

varipes COQUILLETT, Proc. U. S. N. M., XXV, 93.—Great Falls, Md.

TANYTARSUS.

VAN DER WULP, Tijdschr. v. Ent., XVII, 134, 1874.

junci MEIGEN, Syst. Besch., I, 50 (*Chironomus*).—Europe.

SCHINER, Fauna Austr., II, 597 (*vernus*). [Lundbeck.]

LUNDBECK, Dipt. Groenl., I, 283, oc. in Greenland (*Chironomus*).

tenuis MEIGEN, Syst. Besch., VI, 255 (*Chironomus*).—Europe.

STAEGER, Dipt. Dan., 581, 1840 (id.).

ZETTERSTEDT, Dipt. Scand., IX, 3581 (id.).

SCHINER, Fauna Austr., II, 598 (id.).

LUNDBECK, Dipt. Groenl., I, 284, oc. in Greenland (id.).

EURYCNEMUS.

VAN DER WULP, Tijdschr. v. Ent., XVII, 135, 1874.

scitulus COQUILLETT, Proc. U. S. N. M., XXIII, 608.—Riverton, N. J.

DIAMESA.

MEIGEN, Syst. Besch., VII, 12, 1830.

ZETTERSTEDT, Dipt. Scand., IX, 3591, 1850.

SCHINER, Fauna Austr., II, 615, 1864.

JOHANNSEN, Bull. 68, N. Y. State Mus., 439, 1903.

aberrata LUNDBECK, Dipt. Groenl., I, 289.—Greenland.

STAEGER, Groenl. Antliater, oc. in Greenland (*waltlii* MEIGEN). [Ldbk.]

chorea LUNDBECK, Dipt. Groenl., I, 291.—Greenland.

waltlii MEIGEN, Syst. Besch., VII, 13.—Europe.

FITCH, Winter Insects of New York, in Amer. Quart. Jour. Agr. and Sci., v, 1846, 282 (*Chironomus nivoriundus*); reprinted in Lintner's Second N. Y. Rept., 242.—New York.

SCHINER, Fauna Austr., II, 615.

JOHANNSEN, Bull. 68, N. Y. State Mus., 439, pl. XLVIII, f. 9-13, larva, pupa and adult; syn.—New York.

Note.—The *Orthocladus nivoriundus* FITCH of Mrs. Slosson's White Mountain list is probably a different species; the one from New Jersey in the Smith Catalogue certainly is, according to Johannsen.

For the *Diamesa waltlii* of Staeger, see *aberrata*.

THALASSOMYIA.

SCHINER, Verh. Zool.-Bot. Verein, VI, 216, 1856.

JOHANNSEN, Bull. 68, N. Y. State Mus., 436, 1903.

obscura JOHANNSEN, loc. cit., pl. I, f. 1-15, larva, pupa and adult.—Adirondacks, N. Y.

TANYPUS.

MEIGEN, Illig. Mag., II, 261, 1803; Syst. Besch., I, 55, 1818.

ZETTERSTEDT, Dipt. Scand., IX, 3592, 1850.

SCHINER, Fauna Austr., II, 615, 1864.

algens COQUILLETT, Proc. U. S. N. M., XXV, 90.—Popof Id., Alaska.

- annulatus** SAY, see *Monilis*.
- baltimoreus** MACQUART, Dipt. Exot., Suppl., v, 15.—Baltimore.
N. J.—Smith Cat.
- barberi** COQUILLET, Proc. U. S. N. M., xxv, 90.—Las Vegas Hot Springs, N. M.
- bellus** LOEW, Cent., vii, 4.—D. C.
- bifasciatus** COQUILLET, Proc. U. S. N. M., xxiii, 609.—Riverton, N. J.; Boston, Mass.
- choreus** MEIGEN, Klassif., i, 23; loc. cit., 21 and 24 (*fasciatus* and *sylvaticus*) [SCHINER]; Syst. Besch., i, 62.—Europe.
STAEGE, Dipt. Dan., 585.
ZETTERSTEDT, Dipt. Scand., ix, 3609.
SCHINER, Fauna Austr., ii, 617.
LOEW, Silliman's Jour., oc. in N. A.
- concinnus** COQUILLET, Proc. Acad. Nat. Sci., 1895, 308.—Fla.
White Mts., N. H.—Slosson.
- crassinervis** ZETTERSTEDT, Ins. Lapp., 817; Dipt. Scand., ix, 3599.—Europe.
STAEGE, Groenl. Antl., 354, oc. in Greenland.
LUNDBECK, Dipt. Groenl., i, 294, oc.
- decedens** WALKER, List, i, 22.—Martin Falls, Canada.
White Mts., N. H.—Slosson; this is very doubtful, as Walker's desc. seems unrecognizable.
- discolor** COQUILLET, Proc. U. S. N. M., xxv, 89.—Franconia, N. H.
- dyari** COQUILLET, Ent. News, xiii, 85.—D. C.; Bellport, Long Id.; Cambridge, Mass.; and Detroit, Mich.
- flaveolus** WILLISTON, Dipt. St. Vincent, 275.—St. Vincent, W. I.
- flavicinctus** LOEW, Cent., i, 2.—Pa.
- futilis** VAN DER WULP, Tijdschr. v. Ent., x, 130.—Wis.
- guttularis** COQUILLET, Proc. U. S. N. M., xxv, 92.—Pullman, Wash.
- hirtipennis** LOEW, Cent., vii, 6.—Me.
Province of Quebec—Fyles.
- humeralis** LOEW, Cent., vii, 2.—Cuba.
- indecisus** WILLISTON, Dipt. St. Vincent, 276, pl. ix, f. 35.—St. Vincent, W. I.
- johnsoni** COQUILLET, xxiii, 609.—Riverton, N. J.
- melanops** MEIGEN, Syst. Besch., i, 65.—Europe.
ZETTERSTEDT, Dipt. Scand., ix, 3621. SCHINER, Fauna Austr., ii, 621.
N. J.—Smith Cat.
- monilis** LINNÉ, Fauna Suec., 1763 (*Tipula*).—Europe.
DEGEER, Ins., vi, 394, pl. xxiv, f. 15-19 (*Tipula maculata*).
FABRICIUS, Syst. Antl., 44 (*Chironomus*).
MEIGEN, Syst. Besch., i, 60.
SAY, Jour. Acad. Sci. Phil., iii, 15; Compl. Works, ii, 43 (*annulatus*).—Pa. [Johannsen in litt.]
STAEGE, Dipt. Dan., 584.
ZETTERSTEDT, Dipt. Scand., ix, 3613.
VAN DER WULP, Tijdschr. v. Ent., x, 126, oc. in U. S.—Wis.
OSTEN SACKEN, Cat., 22, doubts occurrence, or else *annulatus* SAY is the same.
MEINERT, Die Eucephale Myggelarver 447, pl. iv, f. 101, transformations.—Europe.
N. J.—Smith Cat.; White Mts., N. H.—Slosson.
- occidentalis** COQUILLET, Proc. U. S. N. M., xxv, 92.—Col.
- pallens** COQUILLET, Proc. U. S. N. M., xxv, 91.—Las Vegas Hot Springs, N. M.
- pictipennis** ZETTERSTEDT, Ins. Lapp., 818.

STAEGER, Groenl. Antliater, oc. in Greenland.

LUNDBECK, Dipt. Groenl., 1, 293, oc. in Greenland.

pilosellus LOEW, Cent., vi, 7.—D. C.

N. J.—Smith Cat.

pinguis LOEW, Cent., 1, 1.—N. Y.

posticalis LUNDBECK, Dipt. Groenl., 1, 295.—Greenland.

pulchripennis LUNDBECK, Dipt. Groenl., 1, 293.—Greenland.

pusillus LOEW, Cent., vii, 5.—D. C.

scapularis LOEW, Cent., vii, 1.—D. C. N. J.—Smith Cat.; Tick Id., Fla.—Johnson.

stellatus COQUILLET, Proc. U. S. N. M., xxv, 89.—Texas.

thoracicus LOEW, Cent., vii, 3.—D. C.

N. J.—Smith Cat.; Tick Id., Fla.—Johnson.

tibialis SAY, Jour. Acad. Sci. Phil., 1823, iii, 15; Compl. Works, ii, 43.—Pa.

WIEDEMANN, Auss. Zw., 1, 20.

tibialis STAEGER, Groenl. Antl., 1845, 354.—Greenland.

LUNDBECK, Dipt. Groenl., 1, 294.—Greenland.

tricolor LOEW, Cent., 1, 3.—N. Y.

turpis ZETTERSTEDT, see *riparius*; Mrs. Slosson's White Mts. list contains this name.

venustus COQUILLET, Proc. U. S. N. M., xxv, 91.—Las Vegas Hot Springs, N. M.

EUTANYPUS.

COQUILLET, Dipt. of Commander Ids., 341, 1899.

borealis COQUILLET, loc. cit.—Bering Id.; Proc. Wash. Acad. Sci., ii, 396, oc. in Alaska, N. M., and N. H.

CHASMATONOTUS.

LOEW, Cent., v, 1, 1864.

bimaculatus OSTEN SACKEN, West. Dipt., 191.—N. Y. Canada.

unimaculatus LOEW, Cent., v, 1.—White Mts., N. H.

univittatus COQUILLET, Proc. Wash. Acad. Sci., ii, 395.—Sitka, Alaska.

OECACTA.

POEY, Memorias, etc., 1, 1851.

furens POEY, loc. cit., 236, pl. xxvii.—Cuba.

TOWNSEND, Jour. Inst. Jamaica, 1, 381, oc. in Jamaica; Annals and Mag. Nat. Hist., xix, 17, oc. in Mexico, on the gulf coast.

ERETMOPTERA.

KELLOGG, Biol. Bull., 1, 82, 1900.

browni KELLOGG, loc. cit., figs.—Monterey, Cal.

Note.—The family name Eretmopteridæ was proposed for this species by Professor Kellogg, but he has since informed me that the larval stages are essentially the same as in Chironomidæ, a family which already includes at least one genus with rudimentary wings; and I have his sanction in placing the species here.

CULICIDÆ.

The discovery that mosquitoes convey malaria, yellow fever, filariasis, and possibly still other diseases, from one human being to another, deserves to rank with the greatest achievements of science. The immediate result, very naturally, has been an immense increase of interest in this family of Diptera, so that new

work is at present being published very rapidly. Theobald's Monograph, noticed below, gives a bibliography up to Feb., 1903, including early articles on the relation of mosquitoes to malaria. I enumerate a few important publications.

On Malaria, etc.

- Riley, Amer. Nat., xvii, 549, May, 1883, mentions the theory of Dr. A. Kink, Columbia University, that mosquitoes cause malaria.
 Nuttall, Dr. Geo. H., Johns Hopkins Hospital Reports, viii.
 Finlay, Chas. J., M.D., Psyche, July, 1899.
 Berkeley, Dr. W. N., N. Y. Medical Record, Dec. 23, 1899.
 Woldert, Dr. Albert, Jour. Amer. Medical Assn., Feb. 10, 1900.
 Bums, Dr. Wm. B., Memphis Medical Monthly, March, 1900.
 Ross, Major Ronald, Nature, March 29, 1900.
 Manson, Dr. Patrick, Popular Science Monthly, July, 1900.
 Celli, "Malaria According to the New Researches," trans. by Eyre. Longmans, Green and Co. London, 1900.
 Howard, "Mosquitoes." McClure, Phillips & Co. New York, 1901.
 Howard, Yearbook of Dept. of Agriculture, 1901, 177-192; Farmers' Bulletin 155, Dept. of Agriculture.

On Classification.

- F. Lynch Arribalzaga, Revista Mus. de la Plata, i, 345-417, 4 pl., 1891; the Argentine species.
 Ficalbi, Bull. Soc. Ent. Ital., 1892-1896, a series of articles revising the European species; he published another general work in vol. xxxi, 1899.
 Lintner, 12th N. Y. Rept., 319-335, 1897, popular account.
 Coquillett, Circular No. 40, n. ser., Div. of Ent.—a brief synopsis of the species known in the United States; published in a second edition, with a slight addition; also published in Bull. 25, n. ser., Div. of Ent.
 Herrick, Bull. 74, Miss. Ex. Sta.
 Garman, Bull. 96, Ky. Ex. Sta.
 Lugg, 2d Rept. Ent. Minn., 182-195, with good figs.
 Giles, Handb. of Gnats. John Bale Sons and Danielsson, Limited. London, 1900.

A second edition, entirely rewritten, was published in 1902; in its new form, the systematic part is mainly an abridgement of the following.

Theobald, A Monograph of the Culicidæ. Printed by the British Museum, 1901-3.

Three volumes, with many figures and maps, and a fourth volume of plates, mostly colored. Contains a vast amount of information on distribution, habits in larval and mature stages, etc. The systematic part is based on the collections in the British Museum.

Johannsen, Bull. 68, N. Y. State Mus., 388-429, 1903, tables of genera of larvæ, pupæ and adults, etc.

On Larvæ.

Dyar, Proc. Ent. Soc. Wash., v, 51 and 145, 1902 and 1903, analytical tables of the known larvæ from the United States.

Kellogg, Ent. News, x, 102, length of larval period.

Smith, Ent. News, xiii, 198, notes on hibernating stage in various species.

Morgan and Dupree, Bull. 40, n. ser., Div. of Ent., 88, notes on hibernation and development of several species.

See also recent smaller papers by Coquillett, Smith and Dyar, as mentioned under the various species.

Note.—The nomenclature adopted is generally that of Theobald.

ANOPHELES.

- MEIGEN, Syst. Besch., i, 10, 1818.
 DESVOIDY, Mem. Soc. Hist. Nat. Paris, III, 410, 1827.
 MACQUART, Hist. Nat. Dipt., i, 32, 1834.
 ZETTERSTEDT, Dipt. Scand., IX, 3466, 1850.
 SCHINER, Fauna Austr., II, 624, 1864.
 MEINERT, De Eucephale Myggelarver, 302, 1886, on literature of transformations.
 COQUILLETT, Circ. No. 40, Div. of Ent., 4, table of species; Bull. 25, Div. of Ent., 21, same.
 THEOBALD, Monogr. of Culicidæ, I, 115, 1901; III, 11, 1903, the latter in the restricted sense.
 JOHANNSEN, Bull. 68, N. Y. St. Mus., 405, 1903.
- albimanus** WIEDEMANN, Auss. Zweifl., II, 13.—Hayti or San Domingo.
 ROEDER, Stett. Ent. Zeit., 1885, 338, oc. in Porto Rico.
 THEOBALD, Monogr. of Culicidæ, I, 122, note, not seen.
 GILES, Handb. of Gnats, 2d ed., 294.
 COQUILLETT, Bull. 25, 21, note.
- annulimanus** VAN DER WULP, Tijdschr. v. Ent., x, 129, pl. III, f. 2.—Wis.
 COQUILLETT, Bull. 25, 21, suspects that this is the male of *Culex consobrinus*.
 THEOBALD, Monogr. of Culicidæ, I, 213, quotes desc.; probably distinct.
 GILES, Handb. of Gnats, 2d ed., 325.
 JOHANNSEN, Bull. 68, N. Y. State Mus., 388-429, 1903, tables of genera of larva, pupa and adult, with much other matter of value.
- argyrotarsis** DESVOIDY, see *Cellia*.
- barberi** COQUILLETT, Canad. Ent., XXXV, 310.—Plummer's Id., Md.
- crucians** WIEDEMANN, Auss. Zweifl., I, 12, 1828.—Pa. and New Orleans; supposed to have been a redescription of Say's type of *punctipennis*, with the name arbitrarily changed, but both Coquillett and Theobald consider it a distinct species.
 COQUILLETT, Circ. No. 40, Div. of Ent., 4.
 THEOBALD, Monogr. of Culicidæ, I, 204, pl. v, f. 23.—U. S.
 GILES, Handb. of Gnats, 2d ed., 324.
 DYAR, Proc. Ent. Soc. Wash., v, 46, oc. at Bellpart, Long Id.
 HOWARD, "Mosquitoes," 113, note.—D. C., Va., Ga., La.
- cubensis** AGRAMONTE, see *Cellia albipes*.
- eiseni** COQUILLETT, Jour. N. Y. Ent. Soc., x, 192.—Aguna in Guatemala.
- hyemalis** FITCH (*Culex*), see *punctipennis*.
- ferruginosus** WIEDEMANN, see *walkeri*.
- grabhamii** THEOBALD, see *Cyclolepteron*.
- maculipennis** MEIGEN, Syst. Besch., I, 11, pl. I, f. 17, 1818.—Europe.
 ? MEIGEN, Klassif. Dipt., I, 5 (*Culex bifurcatus* LINN.).
 SAY, Long's Exped., App., 356, 1824 (*quadrimaculatus*); Compl. Works, I, 241 (id.).—N. W. Terr.
 WIEDEMANN, Auss. Zweifl., I, 13 (*quadrimaculatus*).
 HALIDAY, Entom. Mag., I, 148.
 MACQUART, Hist. Nat. Dipt., I, 32.
 LOEW, Dipt. Beitr., I, 4 (*pictus* and *maculipennis*).
 ZETTERSTEDT, Ins. Lapp., 808; Dipt. Scand., IX, 3468.
 SCHINER, Fauna Austr., II, 625.
 LOEW, in Silliman's Jour., XXXVII, 317, oc. in N. A.
 MEINERT, Eucephale Myggelarver, 303, pl. I, f. 20-31, larval stages.—Europe.

- HOWARD, Bull. 25, 32-41, full biology, figs., etc. (*quadrinaculatus*).—N. H. to Fla. and Tex.
- LUGGER, 2d Rept. Ent. Minn., 1896, 195, note and excellent fig. (*quadrinaculatus*).—Minn.
- HOWARD, Bull. 25, syn. of *maculipennis*, on authority of Theobald.
- FICALBI, Bull. Soc. Ent. Ital., 1896, 228 and 1899, 90 (*claviger* FABR.).
- GRASSI, Reale Acad. d. Lincei, S. d. u. Zool. sulla Malaria, 77.
- OSTEN SACKEN, Ent. Mo. Mag., 2d ser., XI, 281, shows invalidity of *claviger* FABR.
- THEOBALD, Monogr. of Culicidæ, I, 191, pl. v, f. 17, full discussion; the principal agent in conveying malaria in Italy.—Europe and N. A. Ontario to New Orleans and west to Idaho.
- GILES, Handb. of Gnats, 2d ed., 327.
- HOWARD, "Mosquitoes," 93-108, life history.
- GARMAN, Bull. 96, Ky. Ex. Sta., 205, brief desc.—Ky.
- DYAR, Proc. Ent. Soc. Wash., v, 46 and 141, notes on larvæ.—Long Id. and N. H.
- JOHANNSEN, Bull. 68, N. Y. St. Mus., 409.
- nigripes** STAEGER, Krøyer's Tidskr., II, 552, 1839.—Europe.
- ? HALIDAY, Zool. Jour., XII (*plumbicus*).
- ZETTERSTEDT, Dipt. Scand., IX, 3467.
- LOEW, Dipt. Beitr., I, 4.
- SCHINER, Fauna Austr., II, 625.
- LOEW, in Silliman's Jour., XXXVII, oc. in N. A.
- MEINERT, Eucephale Myggelarver, 395, pl. I, f. 32-35, larval stages.—Europe.
- THEOBALD, Monogr. of Culicidæ, I, 201, pl. VI, f. 21.—Europe and N. A.
- GILES, Handb. of Gnats, 2d ed., 330.
- COQUILLET, Bull. 25, 21, note.
- pseudopunctipennis** THEOBALD, Monogr. of Culicidæ, II, 305.—Grenada, W. I.
- GILES, Handb. of Gnats, 2d ed., 323.
- punctipennis** SAY, Jour. Acad. Sci. Phil., III, 9; Compl. Works, II, 39 (*Culex*).—U. S.
- FITCH, Amer. Quart. Jour. Agr. and Sci., v, 274-284, May, 1847 (*Culex hycmalis*).—New York. This is reprinted in Lintner's 2d N. Y. Rept., 241.
- THEOBALD, Monogr. of Culicidæ, I, 189, pl. VI, f. 24 and pl. XXXVII, f. 145.—Lake Simcoe, Ont.
- GILES, Handb. of Gnats, 2d ed., 323, pl. x, f. 6.—N. A.
- DYAR, Proc. Ent. Soc. Wash., v, 46 and 140, notes on larvæ, etc.—N. H.
- GARMAN, Bull. 96, Ky. Ex. Sta., 204, fig.—Ky.
- HERRICK, Bull. 74, Miss. Ex. II-17, figs.; life hist. in Miss.
- HOWARD, "Mosquitoes," 113, note; Farmers' Bull. 155, Dept. Agr., figs.
- JOHANNSEN, Bull. 68, N. Y. St. Mus., 406, pl. XLII.—N. Y.
- quinquefasciatus** SAY, Jour. Acad. Sci. Phil., III, 10; Compl. Works, II, 39 (*Culex*).—Miss. R.
- WIEDEMANN, Auss. Zweifl., I, 12, redesc. as *An. ferruginosus*.—New Orleans.
- COQUILLET, Bull. 25, 21, notes.
- THEOBALD, Mon. of Culicidæ, I, 199, perhaps *walkeri* is the same.
- N. J.—Smith Cat.
- walkeri** THEOBALD, Monogr. of Culicidæ, I, 190, pl. v, f. 20.—Lake Simcoe, Ont.
- GILES, Handb. of Gnats, 2d ed., 329.
- See *quinquefasciatus*.

CYCLOLEPPTERON.

THEOBALD, Monogr. of Culicidæ, II, 312, 1901; III, 12, 1903.

GILES, Handb. of Gnats, 2d ed., 331, 1902.

grabhamii THEOBALD, Monogr. of Culicidæ, I, 205 (*Anopheles*); II, 312, gen. ref. and larva.—Jamaica.

GILES, Handb. of Gnats, 2d ed., 332.

ARRIBALZAGIA.

THEOBALD, Monogr. of Culicidæ, III, 13 and 81, 1903.

maculipes THEOBALD, Monogr. of Culicidæ, III, 81, pl. v, and figs.—Brazil and Trinidad, W. I.

CELLIA.

THEOBALD, Jour. Trop. Med., v, 181, 1902; Monogr. of Culicidæ, III, 14 and 107, 1903.

argyrotarsis DESVOIDY, Mém. Soc. Hist. Nat. Paris, III, 411 (*Anopheles*).—Brazil. F. LYNCH ARIBALZAGA, Revista d. Mus. de la Plata, I, 378, pl. iv, f. 2 (*Anopheles albitarsis*).—Argentina.

THEOBALD, Monogr. of Culicidæ, I, 123, pl. 1, f. 1 (*Anopheles*); III, 110, gen. ref., etc.—Jamaica, St. Lucia, Antigua, Grenada, Brit. Guiana; St. Vincent.

GILES, Handb. of Gnats, 2d ed., 295 (*Anopheles*).

albipes THEOBALD, Monogr. of Culicidæ, I, 125, pl. 1, f. 3 (*Anopheles argyrotarsis*, subsp. *albipes*); III, pl. vii, oc. in Lesser Antilles, habits, etc.—Jamaica, Br. Guiana.

GILES, Handb. Gnats, 2d ed., 300 (*Anopheles albipes*).

AGRAMONTE, El Progreso Medico, x, 460, Dec. 1900 (*Anopheles cubensis*).—Cuba [Giles].

MEGARHINUS.

DESVOIDY, Mém. Soc. Nat. Hist. Paris, III, 412, 1827.

MACQUART, Dipt. Exot., I, 1, 1838.

THEOBALD, Monogr. of Culicidæ, I, 215, 218, and II, 351, 1901; table of species, remarks on larvæ, etc.

GILES, Handb. of Gnats, 2d ed., 265, 267, table of species, 1902.

ferox WIEDEMANN, Auss. Zweifl., I, 1.—Brazil.

WALKER, List, I, 1, oc. in Ga.

COQUILLET, Bull. 25, oc. in D. C.

THEOBALD, I, 237, says Walker's species was *portoricensis*.

grandiosus WILLISTON, Biologia, Dipt., I, 224.—Guerrero, Mex.

THEOBALD, Monogr. of Culicidæ, III, 113, quotes desc.

hæmorrhoidalis FABRICIUS, Ent. Syst., IV, 401 (*Culex*); Syst. Antl., 35 (id.).—S. A., Cayenne.

WIEDEMANN, Auss. Zweifl., I, 2; Dipt. Exot., I, 6 (*Culex*).

MACQUART, Dipt. Exot., I, 1, 32.

OSTEN SACKEN, Cat., oc. in Cuba.

WILLISTON, Biologia, Dipt., I, 224, oc. in Vera Cruz, Mex.

THEOBALD, Monogr. of Culicidæ, I, 222; III, 114.—Mex.; Guiana.

longipes THEOBALD, Monogr. of Culicidæ, I, 241, pl. ix, f. 34.—Mex.

GILES, Handb. of Gnats, 2d ed., 277.

portoricensis ROEDER, Stett. Ent. Zeit., 1885, 337.—Porto Rico.

WALKER, List, I, 1, oc. in Ga. (*ferox* Wd.). [Theobald.]

WILLISTON, Trans. Ent. Soc. Lond., 1896, 271, oc. in St. Vincent.



THEOBALD, Monogr. of Culicidæ, I, 232, pl. VIII, f. 32; III, 119, notes.—San Domingo, Grenada, Para.

GILES, Handb. of Gnats, 2d ed., 275.

HOWARD, Bull. 25, 47, oc. at Benoit, Miss.

rutilus COQUILLETT, see *Toxorhynchites*.

TOXORHYCHITES.

THEOBALD, Monogr. of Culicidæ, I, 244, 1901.

rutilus COQUILLETT, Canad. Ent., 1896, 43 (*Megarhinus*).—N. C., Ga., Fla.

HOWARD, Bull. 25, n. ser., Div. Ent., 46, f. 21 (id.); "Mosquitoes," 154, fig.

THEOBALD, Monogr. of Culicidæ, I, 244, quotes orig. desc. with note (*Megarhinus*); III, 124, gen. ref. by Coquillett.

GILES, Handb. of Gnats, 2d ed., 275, quotes orig. desc.

JANTHINOSOMA.

F. LYNCH ARRIBALZAGA, Revista d. Mus. de la Plata, I, 394, 1891.

THEOBALD, Monogr. of Culicidæ, I, 253, 1901, modified.

GILES, Handb. of Gnats, 2d ed., 337, 1902; table of species, 338.

COQUILLETT, in Howard's "Mosquitoes," 234 (*Conchyliastes* THEOB., which was a *Ms.* name).

discrucians WALKER, Dipt. Saund., 430 (*Culex*).—S. A.

THEOBALD, Monogr. of Culicidæ, III, 126, figs.—Trinidad.

lutzii THEOBALD, Monogr. of Culicidæ, I, 257, pl. XII, f. 46; III, 128, oc.—Brazil, Trinidad.

GILES, Handb. of Gnats, 2d ed., 340.

musica SAY, Jour. Acad. Sci. Phil., v, 149; Compl. Works, II, 348 (*Culex*).—Ind. ? BELLARDI, Saggio, I, 5 (*Culex mexicanus*).—Mexico.

THEOBALD, Monogr. of Culicidæ, I, 255, pl. XI, f. 44; III, 124.—Brazil, Trinidad.

GILES, Handb. of Gnats, 2d ed., 340.

MORGAN, Bull. 37, n. ser., Div. of Ent., figs., habits (*Conchyliastes*).—La. Miss.—Herrick; Lansing, Mich.—Pettit.

posticata WIEDEMANN, Auss. Zweifl., I, 9, and Dipt. Exot., 43 (*Culex*).—Mex.

THEOBALD, Monogr. of Culicidæ, I, 253, pl. XII, f. 45; III, 125, notes.—St. Lucia, W. I.

GILES, Handb. of Gnats, 2d ed., 341.

HOWARD, Bull. 25, 30, oc.—D. C., Va., Pa., Tex.

PSOROPHORA.

DESVOIDY, Mém. Soc. Hist. Nat. Paris, III, 412, 1827.

THEOBALD, Monogr. of Culicidæ, I, 259, 261, 45; II, 352,—table of species, larvæ, etc., 1901.

GILES, Handb. of Gnats, 2d ed., 343, 1902.

JOHANNSEN, Bull. 68, N. Y. St. Mus., 410, 1903.

ciliata FABRICIUS, Ent. Syst., IV, 401 (*Culex*); Syst. Antl., 38 (id.).—West Indies.

WIEDEMANN, Dipt. Exot., 7 (*Culex molestus*); Auss. Zweifl., I, 3 (*Culex*).

? WIEDEMANN, Dipt. Exot., I, 7. Query by Theobald.

DESVOIDY, Mém. Soc. Hist. Nat. Paris, III, 413 (*boscii* and *ciliata*).

MACQUART, Dipt. Exot., Suppl., IV, II, pl. I, f. I.

WALKER, Dipt. Saund., 427 and 431 (*Culex conterrens* and *perterrens*).—

U. S. and S. A.

- F. LYNCH ARRIBALZAGA, *Revista d. Museo de la Plata*, 1, 382, pl. iv, f. 3.—Argentina.
- HOWARD, *Canad. Ent.*, xxxii, 353, larva and pupa desc. and fig.; "Mosquitoes," 144-152, figs., life hist., etc.; *Bull.* 25, 45, fig., etc.—Mass. to Fla. and Cal.
- COQUILLETT, *Bull.* 4, 23, oc.; *Circ.* 40, notes; *Bull.* 25, 22, notes.
- THEOBALD, *Monogr. of Culicidæ*, 1, 261, pl. x, f. 37; iii, 130, notes.
- GILES, *Handb. of Gnats*, 2d ed., 345.
- H. F. HARRIS, *Ent. News*, xiv, 232, eggs desc.
- GARMAN, *Ky. Ex. Sta. Bull.* 96, 215, oc. in Ky.
- JOHANNSEN, *Bull.* 68, N. Y. St. Mus., 411.
- N. J.—Smith Cat.; Fla.—Johnson; Miss.—Herrick.
- howardii** COQUILLETT, *Canad. Ent.*, xxxiii, 258. —Hartsville, S. C.
- THEOBALD, *Monogr. of Culicidæ*, iii, 131, quotes desc.
- JOHANNSEN, *Bull.* 68, N. Y. State Mus., 410, no desc.
- scintillans** WALKER, *List*, 1, 1 (*Sabethes*).—Para, S. A.
- THEOBALD, *Monogr. of Culicidæ*, 1, 265, redesc.; iii, 130, oc. in Trinidad.

STEGOMYIA.

- THEOBALD, *Monogr. of Culicidæ*, 1, 283, 1901, table of species, etc.
- GILES, *Handb. of Gnats*, 2d ed., 368, 1902, table of species, etc.
- fasciata** FABRICIUS, *Syst. Antl.*, 36 (*Culex*).—W. Indies.
- MEIGEN, *Syst. Besch.*, 1, 3 (*Culex calopus*).—Europe.
- WIEDEMANN, *Auss. Zweifl.*, 1, 8, 10 (*Culex fasciata* and *teniopus*).—W. I. and Savannah, Ga.
- DESVOIDY, *Mém. Soc. Hist. Nat. Paris*, iii, 408 (*Culex frater*).—W. I.
- MACQUART, *Dipt. Exot.*, Suppl., 1, 8 (*Culex annulitarsis*).—Isle de France.
- WALKER, *List*, 1, 3, 4 (*Culex viridifrons*, *excitans*, *formosus*, *incxorabilis*). No. loc.; Sierra Leone; Ga. Also *Dipt. Saund.*, 430 (*C. agitans*) from Para and Jour. Linn. Soc., iv, 91 (*C. impatibilis*), and v, 229 (*C. zonatipes*).
- SKUSE, *Proc. Linn. Soc. New South Wales*, iii, 1740 (*C. bancroftii*).—N. Australia.
- FICALBI, *Bull. Soc. Ent. Ital.*, 1889 (*C. elegans*), and 1896, 251 (*C. elegans* and *calopus* MEIG.).—Italy.
- F. LYNCH ARRIBALZAGA, *Revista d. Museo de la Plata*, 1, 402, pl. iii, f. 1 (*C. mosquito* DESV.).—Argentina.
- GILES, *Jour. Trop. Med.*, 1899, 64 (*C. rossii*).
- HOWARD, "Mosquitoes," 121-140, life hist. and account of its relation to yellow fever; *Bull.* 25, 30, oc. in Ga., La., Tex. and W. I.
- WALTER REED, surgeon, and JAS. CARROLL, A. AGRAMONTE, and JESSE W. LAZEAR, assistant surgeons, in *Phil. Med. Jour.*, Oct., 1900, preliminary paper on etiology of yellow fever, tracing it to the bite of this mosquito. This paper is noticed in *Science*, n. ser., xii, 692, Nov. 2, 1900.
- THEOBALD, *Monogr. of Culicidæ*, 1, 289, pl. xiii, f. 49, 50.—S. Europe, E. and W. Africa; India to Japan and Australia; S. U. S. to Argentina. The Yellow Fever Mosquito; also conveys filariasis.
- THEOBALD, *Mon.*, iii, 141, additional notes.
- GARMAN, *Bull.* 96, Ky. Ex. Sta., 210, fig., etc.—Ky.
- var. **mosquito** DESVOIDY, *Mém. Soc. Hist. Nat. Paris*, iii, 407 (*Culex mosquito*).—Cuba.
- GUÉRIN et PERCHERON, *Gen., &c. Dipt.*, pl. ii, f. 1 (id.).

- THEOBALD, Monogr. of Culicidæ, I, 295, pl. XIII, f. 50 (var. of *fasciata*).—
St. Lucia, Jamaica, Calcutta.
var. *luciensis* THEOBALD, Monogr. of Culicidæ, I, 297.—St. Lucia, W. I., and
Demerara.
sexlineata THEOBALD, Monogr. of Culicidæ, I, 308.—Trinidad, W. I.
GILES, Handb. of Gnats, 2d ed., 377.
? *signifer* COQUILLET, Canad. Ent., XXVIII, 43 (*Culex*).—D. C.
THEOBALD, Monogr. of Culicidæ, I, 322, gen. ref., with a doubt, and note.
GILES, Handb. of Gnats, 2d ed., 379, note.
SMITH, Ent. News, XIII, 299, pl. xv, f. 1, larval structure.—N. J.
DYAR, Jour. N. Y. Ent. Soc., XI, 26, pl. III, f. 2, larva (*Culex*).—N. J.
Va.—Howard.
tarsalis COQUILLET, see *Culex*.

THEOBALDIA.

- NEVEU-LEMAIRE, Compt. Rend. Séances Soc. Biol., 29 Nov., 1902.
THEOBALD, Monogr. of Culicidæ, III, 148, 1903.
annulata SCHRANK, Beiträge zur Naturgesch., 97, 1776 (*Culex*); Ins. Austr.,
984 (id.).—Europe.
FABRICIUS, Syst. Antl., 35 (id.).
MEIGEN, Klassif. 2; Syst. Besch., I, 4 (id.).
STEPHENS, Zool. Jour., I, 1825 (*Culex affinis*).
STAEGER, Dipt. Dan., 1840, 554 (id.).
ZETTERSTEDT, Ins. Lapp., 806; Dipt. Scand., IX, 3460 (id.).
SCHINER, Fauna Austr., II, 626 (id.).
OSTEN SACKEN, Cat., 18, oc. on Mackenzie R., Canada.
MEINERT, Eucephale Myggelarver, 376, pl. I, f. 1-16, larval stages (*Culex*).
Europe.
OSTEN SACKEN, Biologia, Dipt., I, 5, oc. in Mex. (*Culex*).
THEOBALD, Monogr. of Culicidæ, I, 331, pl. xv, f. 58 (id.); III, 148, gen. ref.,
etc.
GILES, Handb. of Gnats, 2d ed., 391, note.
COQUILLET, Circ. No. 40; Bull. 25, 20, note.
HOWARD, "Mosquitoes," 80, oc. Mass. to Nebr., N. M., Cal. to Br. Col.
(*Culex*).
LUDLOW, Jour. N. Y. Ent. Soc., x, 131, oc. at Ft. Baker, Cal. (*Culex*).
incidens THOMSON, Eugen. Resa, 443 (*Culex*).—Cal.
THEOBALD, Canad. Ent., XXXV, 311, notes.—Pecos, N. M. Also Monogr.,
III, 151, pl. x and figs.—Moscow, Idaho; Corvallis, Ore.
Seattle and Pullman, Wash.—J. M. A.

LUTZIA.

- THEOBALD, Monogr. of Culicidæ, III, 155, 1903.
bigoti BELLARDI, Saggio, App., 3, f. 1 (*Culex*).—Mex.
THEOBALD, Monogr. of Culicidæ, I, 343, pl. XVI, f. 62 (*Culex*, provisionally).
—Rio de Janeiro.
GILES, Handb. of Gnats, 2d ed., 390, pl. xv, f. 6-11 (*Culex*).
THEOBALD, Mon., III, 155, fig.—Brazil.

CULEX.

- LINNÉ, Fauna Suecica, 464, no. 1890, 1761.
MEIGEN, Illig. Mag., II, 260, 1803; Syst. Besch., I, 1, 1818.

- DESVOIDY, Mem. Soc. Hist. Nat. Paris, III, 403, 1827.
 ZETTERSTEDT, Dipt. Scand., IX, 3453, 1850.
 SCHINER, Fauna Austr., II, 625, 1864.
 MEINERT, Eucephale Myggelarver, in Vidensk. Selsk., 6 Række, Naturvidensk og Mathem., Afd. III, 4, 1886, p. 375; literature of transformations, etc.
 COQUILLETT, Div. of Ent. Bull. 4, n. ser., 1896, list of species with localities; Circ. no. 40, sec. ser., Div. of Ent., 5, table of species; Bull. 25, n. ser., 1900, table of species, 19.
 THEOBALD, Monogr. of Culicidæ, I, 326, 1901.
 GILES, Handb. of Gnats, 2d ed., 386, 1902.
 DYAR, Proc. Ent. Soc. Wash., v, 51, 1902, and 145, 1903, tables of species based on larvæ.
 JOHANNSEN, Bull. 68, N. Y. St. Mus., 411, 1903, table of known species of larvæ, etc.
- affinis** ADAMS, Kans. Univ. Sci. Bull., II, 25.—Ariz.
 COQUILLETT, Canad. Ent., XXXV, 261, makes a syn. of *tarsalis* COQ.; but I am assured by Adams that this is an error.
- annulatus** SCHRANK, see *Theobaldia*.
- apicalis** ADAMS, Kans. Univ. Sci. Bull., II, 26.—Ariz.
- atratus** THEOBALD, see *Melanoconion*.
- atropalpus** COQUILLETT, Canad. Ent., 1902, 292.—Va., Md., Pa., N. H.
 SMITH, Ent. News, XIII, 301, pl. xv, f. 9, larva.—Me.
 DYAR, Jour. N. Y. Ent. Soc., x, 195, pl. xvi, f. 2, larva; Proc. Ent. Soc. Wash., v, 144, notes on larvæ; Ent. News, xiv, 180, eggs and larvæ.—N. H. and Md.
- aurifer** COQUILLETT, Canad. Ent., XXXV, 225.—Centre Harbor, N. H.; Lahaway, N. J.
- bigoti** BELLARDI, see *Lutzia*.
- bimaculatus** COQUILLETT, Proc. U. S. N. M., xxv, 84.—Brownsville, Tex.
 DYAR, Jour. N. Y. Ent. Soc., xi, 27, pl. III, f. 3, larva.—Baton Rouge, La.
- canadensis** THEOBALD, Monogr. of Culicidæ, II, 3, pl. XXI, f. 82, 83.—L. Simcoe, Ont.
 GILES, Handb. of Gnats, 2d ed., 422.
 SMITH, Ent. News, XIII, 267 and 299, pl. xv, f. 2, larva, etc.—Lahaway, N. J.
 DYAR, Jour. N. Y. Ent. Soc., x, 194, pl. xvi, f. 1, larval stages; Proc. Ent. Soc. Wash., v, 140, 141, notes on larvæ.—Common in N. H.
- cantator** COQUILLETT, Canad. Ent., XXXV, 255.—Summit, N. J.
- cantans** MEIGEN, Syst. Besch., I, 6.—Europe.
 ZETTERSTEDT, Ins. Lapp., 806; Dipt. Scand., IX, 3461.
 WALKER, List, I, 4 (*stimulans*); Ins. Brit., III, 246.—Nova Scotia.
 SCHINER, Fauna Austr., II, 627.
 FICALBI, Bull. Soc. Ent. Ital., 1896, 258.
 HOWARD, Bull. 25, 31, oc. New Eng., Md., Mich., to Col., N. M., and Mex. (*stimulans*); "Mosquitoes," 81, oc. (id.).
 THEOBALD, Monogr. of Culicidæ, I, 401, pl. XX, f. 78; III, 197, notes.—Europe generally; L. Simcoe, Ont.; Manitoba; India.
 GILES, Handb. of Gnats, 2d ed., 416.
 SMITH, Ent. News, XIII, pl. xv, f. 3, larval structure.—N. J.
 DYAR, Proc. Ent. Soc. Wash., v, 47 and 141, notes.—Long Id. and N. H.
 JOHANNSEN, Bull. 68, N. Y. St. Mus., 419, pl. XLV, larva, pupa and adult.—Ithaca, N. Y.

confinis F. LYNCH A., see *Taniorhynchus*.

confirmatus F. LYNCH ARRIBALZAGA, Revista d. Mus. de la Plata, I, 388.—Argentina.

THEOBALD, Monogr. of Culicidæ, II, 42 and 355, pl. XXIV, f. 94; III, 191, note.—Jamaica and Brazil.

GILES, Handb. of Gnats, 2d ed., 443.

consobrinus DESVOIDY, Mém. Soc. Hist. Nat. Paris, III, 408.—Pa.

ALDRICH, Canad. Ent., XXXV, 208 and 264, synonymy.

COQUILLETT, l. c., 218, same. See also *Culex inornatus*.

cubensis BIGOT, in Sagra's Cuba, 786.—Cuba.

curriei COQUILLETT, see *Grahamia*.

cyanescens COQUILLETT, Jour. N. Y. Ent. Soc., x, 137.—Brownsville, Tex.

discolor COQUILLETT, Canad. Ent., XXXV, 256.—Delair, N. J.

dyari COQUILLETT, Jour. N. Y. Ent. Soc., x, 192.—Center Harbor, N. H.

DYAR, Jour. N. Y. Ent. Soc., x, 199, pl. XVIII, f. 2, larva; Proc. Ent. Soc. Wash., v, 143, notes.—N. H.

excitans WALKER, see *Stegomyia fasciata*.

excrucians WALKER, Dipt. Saund., 439.—Nova Scotia.

OSTEN SACKEN, Cat., Note 20.

HOWARD, Bull. 25, oc. at Ithaca, N. Y.

COQUILLETT, Circ. 40, mention.

fatigans WIEDEMANN, Auss. Zweifl., I, 10 and 11 (*fatigans* and *æstuanus*; perhaps also *pungens*, p. 9).—East Indies; Brazil; New Orleans.

MEIGEN, Syst. Besch., VII, 1 (*pullipes*).—Europe.

BIGOT, Annales, 1858 (*anxifer*).

F. LYNCH ARRIBALZAGA, Revista d. Mus. de la Plata, I, 398 (*Heteronychia dolosa*).—Argentina.

HOWARD, Bull. 4, 10-17, figs. and biol. (*pungens*); Bull. 25, 22-28, figs. and biol. (id.).—N. H. to Mex. and W. I.; common.

HOWARD, "Mosquitoes," 66-76, life history (*pungens*).—Ottawa, Can., to Nicaragua.

? LUGGER, 2d Minn. Rept., 185-194, 1896, figs. all stages (*pungens*).—Minn.

THEOBALD, Monogr. of Culicidæ, II, 151, pl. XXIX, f. 114 and 115.—Mass. to Argentina; Africa, Spain and Portugal, India and Australia. Conveys filariasis and a blood disease of birds; for the former, see Ross, Trans. Linn. Soc., sec. ser., II, 367-388; for the latter, see Ross, Ind. Med. Gazette, Dec., 1898 and Jan., 1899.

GILES, Handb. of Gnats, 2d ed., 438.

THEOBALD, Mon., III, 225, additional notes.

SMITH, Ent. News, XIII, 302, pl. xv, f. 14, larval structure; 14th Rept. N. J. Ag. Coll. Ex. Sta., 1902, 559-561, breeding habits (*pungens*).—N. J.

flavipes MACQUART, Dipt. Exot., I, 1, 35.—Chili.

BLANCHARD, Hist. fis. y. polit. de Chile, Zool., VII, 332.—Chili.

PHILIPPI, Aufzähl. d. Chil. Dipt., 595 (*flavipes* and *serotinus*).—Chili.

KOLLAR, Bras. vorz. läst. Ins., 187, f. 13 (*molestus*).—Brazil. [F. L. Arrib.]

F. LYNCH ARRIBALZAGA, Revista d. Mus. de la Plata, I, 58, pl. IV, f. 2.—Buenos Aires.

THEOBALD, Monogr. of Culicidæ, II, 149; III, 224, notes.—Amazon; Br. Guiana and Trinidad.

fletcheri COQUILLETT, Proc. U. S. N. M., XXV, 84.—Carnduff, Assiniboia, Canada.

frater DESVOIDY, see *Stegomyia fasciata*.

hirsuteron THEOBALD, Monogr. of Culicidæ, II, 98.—Woodstock, Va.

GILES, Handb. of Gnats, 2d ed., 451 (*hirsuteros*).

impatiens WALKER, see *inornatus*.

impiger WALKER, see *nigripes*.

implacabilis WALKER, see *nigripes*.

incidens THOMSON, see *Theobaldia*.

inflictus THEOBALD, Monogr. of Culicidæ, II, 115.—Grenada, W. I.

GILES, Handb. of Gnats, 2d ed., 462.

inornatus WILLISTON, Dipt. of Death Val. Exped., 253.—Argus Mts., Cal.

? WALKER, List, I, 5 (*impatiens*); Lord's "Naturalist," etc., II, 337, reprinted in Science Gossip, 1867, 79 (*pinguis*).—Martin Falls, Canada; Vancouver Id. Syn. by Theobald, with a doubt, as the type of *impatiens* does not entirely agree, and that of *pinguis* cannot be found.

COQUILLETT, Bull. 4, n. ser., Div. of Ent., makes this a synonym of *consobrinus* DESV.

HOWARD, Bull. 25, 20, oc. from New England to S. Cal. and Saskatchewan R. (*consobrinus*).

COQUILLETT, Proc. Wash. Acad. Sci., II, 395, oc. in Alaska (id.).

THEOBALD, Monogr. of Culicidæ, II, 78 (id.).—Col.

GILES, Handb. of Gnats, 2d ed., 445 (id.).

THEOBALD, Canad. Ent., XXXV, 312, oc. at Pecos, N. M.

DYAR, Jour. N. Y. Ent. Soc., XI, 24, pl. II, f. 4, larva (id.).

Province of Quebec—Fyles.

See also references under *consobrinus*.

jamaicenis THEOBALD, see *Grabhamia*.

janitor THEOBALD, Monogr. of Culicidæ, III, 183, pl. x, and figs.—Kingston, Jamaica.

kelloggii THEOBALD, see *tarsalis*.

melanurus COQUILLETT, Jour. N. Y. Ent. Soc., x, 193.—Center Harbor, N. H.

DYAR, Jour. N. Y. Ent. Soc., x, 198, pl. XVII, f. 1, larva; Proc. Ent. Soc. Wash., v, 143, notes on larva.—N. H.

mexicanus BELLARDI, see *Janthinosoma musica*.

mosquito DESVOIDY, see *Stegomyia fasciata*.

musicus SAY, see *Janthinosoma*.

nanus COQUILLETT, Canad. Ent., XXXV, 256.—Key West, Fla.

nemorosus MEIGEN, Syst. Besch., I, 4, 6 (*nemorosus*, *maculatus* and *sylvaticus*).—Europe.

? MEIGEN, Klassif., 3, 4 (*reptans* and *fasciatus*); Syst. Besch., VII, 1 (*sticticus*).—Europe. [Syn. by Theob., with doubt.]

ZETTERSTEDT, Ins. Lapp., 806; Dipt. Scand., IX, 3457.

SCHINER, Fauna Austr., II, 628.

WALKER, List, I, 7 (*provocans*).—Nova Scotia.

CURTIS, Brit. Ent., 537 (*guttatus*).

FICALBI, Nota sulla Zanz. Ital., no. IX, 1896 (*salinus*).—Italy.

MEINERT, Eucephale Myggelarver, 377, pl. I, f. 17-19, larval stages.—Europe.

THEOBALD, Monogr. of Culicidæ, II, 80, pl. XXV, f. 97, 98; III, 179, note.—Europe and Toronto, Can.

GILES, Handb. of Gnats, 2d ed., 436.

? DYAR, Proc. Ent. Soc. Wash., v, 140, 141, oc. in N. H. (*reptans*).

? Beulah, N. M.—Skinner (id.).

nigripalpus THEOBALD, Monogr. of Culicidæ, II, 322; III, 221, oc.—St. Lucia; Barbadoes.

GILES, Handb. of Gnats, 2d ed., 468 (*nigripalpis*).

nigripes ZETTERSTEDT, Ins. Lapp., 807; Dipt. Scand., ix, 3458.—Europe.

O. FABRICIUS, Fauna Groenl., 209 (*pipiens*).—Greenland [Ldbk.].

STAEGER, Dipt. Dan., 1840, 553; Groenl. Antl., 349, oc.—Denmark and Greenland.

HOLMGREN, Ins. Spetsb.; Ins. Nordgroenl., 104, oc.—Spitzbergen and Greenland.

PALLAS, in Curtis' Ins. Capt. Ross' Voy., LXXVI (*caspius*). [Schiödte.]

WALKER, List, i, 7 (*impiger* and *implacabilis*).—Martin Falls, Canada.

COQUILLETT, Bull. 25, not seen.

HOWARD, Bull. 25, 29, breeding in privy vaults in Alexandria, Va.; "Mosquitoes," 80 (both *impiger*).—City of Mexico to Saskatchewan R., and U. S. generally.

THEOBALD, Monogr. of Culicidæ, II, 93; III, 193, note (doubts the more southern oc.).

GILES, Handb. of Gnats, 2d ed., 444.

LUNDBECK, Dipt. Groenl., i, 296; Entom. Unters. i West—Groenl., Heft 7, pl. VII, f. 14.—Greenland.

Adirondack Mts., N. Y.—McGillivray and Houghton (*impiger*); Beulah, N. M.—Skinner (id.).

nigritulus ZETTERSTEDT, Dipt. Scand., ix, 3459.—Lapland.

THEOBALD, Monogr. of Culicidæ, II, 140.—Scandinavia and England.

SMITH, Ent. News, XIII, 303, pl. xv, f. 16, larval structure, habits, etc.—Elizabeth, N. J.

DYAR, Jour. N. Y. Ent. Soc., xi, 24, pl. II, f. 3, larva.—N. J.

palos THEOBALD, Monogr. of Culicidæ, III, 194, figs.—St. Vincent and Barbadoes, W. I.

particeps ADAMS, Kans. Univ. Sci. Bull., II, 26.—Ariz.

penafielii WILLISTON, La Naturaleza, VII, 326, 1887.—Mexico.

Note.—I find this in Kertész's catalogue; it seems never to have been noticed elsewhere.

perturbans WALKER, see *Taniorhynchus*.

pinguis WALKER, in Lord's "Naturalist," etc., II, 337; reprinted in Science Gossip, 1867, 69.—Vancouver Id.

Note.—Theobald states that the type cannot be found; Coquillett would call this the same as *inornatus*, q. v..

pipiens LINNÉ, Fauna Suecica, 464, no. 1890; Syst. Nat., 12th ed. (the latter *ciliaris*, *vulgaris* and *alpinus*).—Europe.

DEGEER, Mém. Hist. Nat. Ins., VI, 316 (*communis*).

FABRICIUS, Spec. Ins., II, 469; Ent. Syst., IV, 400; Syst. Antl., 33.

SCHRANK, Ins. Austr., 481; Fauna Boica, III, 2585.

MEIGEN, Klassif., 5; Syst. Besch., I, 7 (*pipiens* and *rufus*).

ZETTERSTEDT, Ins. Lapp., 807; Dipt. Scand., ix, 3455.

SCHINER, Fauna Austr., II, 628 (*pipiens* and *ciliaris*).

BIGOT, Bull. Soc. Ent. France, ix, 122 (*agilis*).

FICALBI, Rev. Sist. Culic. Europ., 276 (*phytophagus*).

VAN DER WULP, Dipt. Neerland., 328, 329 (*pipiens* and *ciliaris*).

BERGROTH, Wien. Ent. Zeit., VIII, 295, oc. in British Columbia.

THEOBALD, Monogr. of Culicidæ, II, 132, pl. XXIX, f. 113, syn., etc.—Europe generally; Malta; Algeria; N. A.

GILES, Handb. of Gnats, 2d ed., 437.

HERRICK, Bull. 74, Miss. Ex. Sta., 7-11, life hist. in Miss.

DYAR, Jour. N. Y. Ent. Soc., x, 198, pl. XVII, f. 3, larva; Proc. Ent. Soc. Wash., v, 48 and 144, notes.—Durham, N. H.

JOHANNSEN, Bull. 68, N. Y. St. Mus., 419, pl. XLIII, larva, pupa and adult.
—Saranac Inn., N. Y.

posticatus WIEDEMANN, see *Janthinosoma*.

provocans WALKER, see *nemorosus*.

punctor KIRBY, Fauna Bor.-Amer., Ins., 309; repub. in Canad. Ent., XIII, 164.—
Martin Falls, Canada.

THEOBALD, Monogr. of Culicidæ, II, 75, types redesc.

GILES, Handb. of Gnats, 2d ed., 435.

pungens WIEDEMANN, see *fatigans*.

quadrivittatus COQUILLETT, Canad. Ent., XXXIV, 293.—Chacula, Guatemala.

reptans MEIGEN, see *nemorosus*.

restuans THEOBALD, Monogr. of Culicidæ, II, 142.—Toronto, Can.

GILES, Handb. of Gnats, 2d ed., 429.

SMITH, Ent. News, XIII, pl. xv, f. 15, larval habits and structure.—N. J.

DYAR, Jour. N. Y. Ent. Soc., x, 199, pl. XVIII, f. 3, larva and pupa; Proc.
Ent. Soc. Wash., v, 144, note on larva, etc.; Ent. News, xiv, 41, larva,
etc.—N. H.

JOHANNSEN, Bull. 68, N. Y. St. Mus., 417, pl. XLII, larva, pupa and adult.
—Saranac Inn., N. Y.

rubidus DESVOIDY, Mém. Soc. Hist. Nat. Paris, III, 404, 1827.—Carolina.

THEOBALD, Monogr. of Culicidæ, II, 171, transl. of orig. desc. and notes;
not seen.

GILES, Handb. of Gnats, 2d ed., 471, same quoted.

scholasticus THEOBALD, Monogr. of Culicidæ, II, 120; III, 224, notes.—Grenada, St.
Vincent, and St. Lucia, W. I.

GILES, Handb. of Gnats, 2d ed., 459.

secutor THEOBALD, Monogr. of Culicidæ, II, 321; III, 183, notes on habits.—
Jamaica.

GILES, Handb. of Gnats, 2d ed., 406.

serratus THEOBALD, Monogr. of Culicidæ, II, 45, pl. XXIV, f. 95; III, 191, notes.—
Brazil, Guiana, Trinidad.

GILES, Handb. of Gnats, 2d ed., 457, pl. XVI, f. 18.

SMITH, Ent. News, xiv, 309, pl. xv, larva and adult.—N. J.

signifer COQUILLETT, see *Stegomyia*.

similis THEOBALD, Monogr. of Culicidæ, III, 207. —Jamaica.

sollicitans WALKER, see *Grabhamia*.

spencerii THEOBALD, see *Grabhamia*.

squamiger COQUILLETT, Proc. U. S. N. M., xxv, 85.—Palo Alto and San Lorenzo,
Cal.

stimulans WALKER, see *cantans*.

sylvestris THEOBALD, Monogr. of Culicidæ, I, 406, pl. XXXV, f. 138.—L. Simcoe
and Kent Co., Ont.; Stony Mt., Manitoba.

GILES, Handb. of Gnats, 2d ed., 417.

?SMITH, Ent. News, XIII, 301, pl. xv, f. 10, larval habits and structure;
doubtfully identified.—N. J.

DYAR, Jour. N. Y. Ent. Soc., x, 196, pl. XVI, f. 3, larval stages; Proc. Ent.
Soc. Wash., v, 47, larva (*cantans*); v, 142, cor. and notes.—Long. Id.

JOHANNSEN, Bull. 68, N. Y. St. Mus., 421, larva, pupa and adult.—Ithaca,
N. Y.

tæniatus WIEDEMANN, see *Stegomyia fasciata*.

tæniorhynchus WIEDEMANN, Dipt. Exot., 43; Auss. Zweifl., I, 8.—Mex., Pa.

SAY, Jour. Acad. Sci. Phil., III, 11; Compl. Works, II, 40 (*damnosus*—
Wiedemann's Dipt. Exot. is prior) [Wied.].

- THEOBALD, Monogr. of Culicidæ, I, 350, pl. xvii, f. 68; III, 158, notes.—Fla. and Mex. to Brazil.
- SMITH, Ent. News, XIII, 300, pl. xv, f. 5, larval structure.—N. J.
- DYAR, Proc. Ent. Soc. Wash., v, 48, oc. Long. Id.; Jour. N. Y. Ent. Soc., XI, pl. II, f. 1, larva.—N. J.
- tarsalis** COQUILLETT, Canad. Ent., XXVIII, 44; XXXV, 261, syn.—Argus Mts. and Folsom, Cal.
- WILLISTON, Dipt. of Death Val. Exped., 253 (*Culex* n. sp.).—Argus Mts., Cal.
- GILES, Handb. of Gnats, 1900, 281 (*willistonii*); merely a name for Williston's species.
- THEOBALD, Canad. Ent., XXXV, 211 and 311, larva figured (*kelloggii*).—Cal.; Pecos, N. M.
- THEOBALD, Monogr. of Culicidæ, II, 23, notes.
- GILES, Handb. of Gnats, 2d ed., 379, note.
- MISS.—Herrick; Corvallis, Ore.—Howard.
- Note.—Coquillett also makes *affinis* Adams a synonym of this, but Adams writes me that this is certainly incorrect.
- terrilians** WALKER, Ins. Saund., 428.—U. S.
- THEOBALD, Monogr. of Culicidæ, II, III, type redesc.
- GILES, Handb. of Gnats, 2d ed., 455, same.
- DYAR, Proc. Wash. Ent. Soc., v, 48, 142, larvæ, habits, etc.; Jour. N. Y. Ent. Soc., IX, 178, pl. x, f. 2, larva.—Bellport, L. I., and Center Harbor, N. H.
- SMITH, Ent. News, XIII, 302, pl. xv, f. 13, larval habits and structure.—N. J.
- The adult probably does not bite—Dyar.
- testaceus** VAN DER WULP, Tijdsch. v. Ent., 1869, 128, pl. III, f. 1.—Wis.
- THEOBALD, Monogr. of Culicidæ, I, 409.—L. Simcoe, Ont.
- GILES, Handb. of Gnats, 2d ed., 418.
- triseriatus** SAY, Jour. Acad. Sci. Phil., III, 12; Compl. Works, II, 40.—Pa.
- WIEDEMANN, Auss. Zweifl., I, II.
- HOWARD, Bull. 25, 31, oc. in N. H., Pa., Md., D. C., Va., Conn., N. J.
- SMITH, Ent. News, XIII, 301, pl. xv, f. 8, note on larval habits and structure.—N. J.
- DYAR, Proc. Ent. Soc. Wash., v, 140, 143, 152, notes; Jour. N. Y. Ent. Soc., XI, 25, pl. II, f. 1, larva.—N. H. and N. Y.
- JOHANNSEN, Bull. 68, N. Y. St. Mus., 423, pl. XLVI, larva, pupa and adult.—Ithaca, N. Y.
- trivittatus** COQUILLETT, Jour. N. Y. Ent. Soc., x, 193.—Chester, N. Y.
- varipalpus** COQUILLETT, Canad. Ent., XXXIV, 1902, 292.—Williams, Ariz.
- walkeri** THEOBALD, see *Howardina*.
- willistonii** GILES, see *tarsalis*.

MELANOCONION.

- THEOBALD, Monogr. of Culicidæ, III, 238, 1903.
- atratus** THEOBALD, Monogr. of Culicidæ, II, 55, pl. XXXIV, f. 125 (*Culex*); III, 238, notes on larva and pupa, etc.—Jamaica and Trinidad; S. A. and W. I.
- GILES, Handb. of Gnats, 2d ed., 238, notes.
- spissipes** THEOBALD, Monogr. of Culicidæ, III, 242, fig.—Trinidad, W. I.

GRABHAMIA.

- THEOBALD, Monogr. of Culicidæ, III, 243, 1903.
- curriei** COQUILLETT, Canad. Ent., XXXIII, 259 (*Culex*).—N. D., Col., Ida., Cal.

- THEOBALD, *Canad. Ent.*, xxxv, 211, 312, notes, and oc.—Pecos, N. M.
jamaicensis THEOBALD, *Monogr. of Culicidæ*, i, 345, pl. xvi, f. 16 (*Culex*); iii, 244, male, figs.—Jamaica.
 GILES, *Handb. of Gnats*, 2d ed., 394, pl. xv, f. 5 (*Culex*).
pygmæa THEOBALD, *Monogr. of Culicidæ*, iii, 245, pl. xi.—Antigua and Jamaica.
solicitans WALKER, *Dipt. Saund.*, 427 (*Culex*).—U. S.
 ? HOWARD, *Bull.* 25, 28, fig. and notes (*Culex tæniorhynchus*); "Mosquitoes," 82, oc. (id.); *Farmers' Bull.* 155, fig. (id.).—Mass. to Fla. and Jamaica; Galapagos Ids. I mention these references with a query on account of Theobald, *Mon.* i, 351, and ii, 178.
 THEOBALD, *Monogr. of Culicidæ*, i, 368, pl. xvi, f. 64; ii, 178, note; iii, 247, fig. and habits.—N. J. to Fla. and Jamaica.
 GILES, *Handb. of Gnats*, 2d ed., 398 (*Culex*).
 SMITH, *Special Bull. T. of N. J. Ex. Sta.*, 1902, 10 pp., biol., etc.; *Rept. of Ent. for 1902*, 515–556, studies of breeding-places, etc.; *Science*, 1902, 391–394, habits; *Ent. News*, xiii, 300, pl. xv, f. 4, larval structure (all *Culex*).—N. J.; the Salt Marsh Mosquito.
 DYAR, *Proc. Ent. Soc. Wash.*, v, 47, notes on habits (*Culex*); *Jour. N. Y. Ent. Soc.*, x, 197, pl. xvii, f. 2, larva (id.).—N. J. and Long Id.
spencerii THEOBALD, *Monogr. of Culicidæ*, ii, 99, pl. xxvi, f. 104 (*Culex*).—Stony Point and St. Boniface, Manitoba.
 GILES, *Handb. of Gnats*, 2d ed., 431 (*Culex*).
 var. **idahoensis** THEOBALD, *Monogr. of Culicidæ*, iii, 250.—Market Lake, Idaho.
vittata THEOBALD, *Canad. Ent.*, xxxv, 313, fig. and desc. of larva.—Pecos, N. M.

TÆNIORHYNCHUS.

- F. LYNCH ARRIBALZAGA, *Revista d. Mus. de la Plata*, i, 389, 1891.
 THEOBALD, *Monogr. of Culicidæ*, ii, 190, 1901, modified; table of species.
 GILES, *Handb. of Gnats*, 2d ed., 358, 1902; table of species.
confinis F. LYNCH ARRIBALZAGA, *Revista d. Mus. de la Plata*, i, 391.—Chaco in Argentina.
 THEOBALD, *Monogr. of Culicidæ*, i, 382; iii, 259, figs.—Argentina; Guiana and Trinidad.
 GILES, *Handb. of Gnats*, 2d ed., 401.
 DYAR, *Jour. N. Y. Ent. Soc.*, ix, 179, pl. x, f. 3, 1901, larva.—Cabin John Bridge, Md.
 SMITH, *Ent. News*, xiii, 300, pl. xv, f. 7, larval habits and str.—N. J.
 HERRICK, *Bull.* 74, *Miss. Ex. Sta.*, 17, larva in sewage in Miss.
fasciolatus F. LYNCH ARRIBALZAGA, *Revista d. Mus. de la Plata*, i, 392, 1891.—Argentina.
 THEOBALD, *Monogr. of Culicidæ*, ii, 192, pl. xxxi, f. 121; iii, 269, oc. and note.—Brazil; Guiana and Trinidad.
perturbans WALKER, *Dipt. Saund.*, 428 (*Culex*).—U. S.
 THEOBALD, *Monogr. of Culicidæ*, ii, 201, type redesc.
 GILES, *Handb. of Gnats*, 2d ed., 366.
 ? HOWARD, *Bull.* 25, 30, oc. in Md., D. C., Va., Fla., Tex., Porto Rico, Cuba. It is not quite clear that this is the same species.
 ? SMITH, *Ent. News*, xiii, 300, pl. xv, f. 6, larval structure (*Culex*); doubtfully ident.—N. J.
 DYAR, *Proc. Ent. Soc. Wash.*, v, 144, oc. in N. H. (*Culex*).
richardii FICALBI, *Bull. Soc. Ent. Ital.*, 1896, 261.—Italy.

THEOBALD, Monogr. of Culicidæ, II, 194, pl. XXXI, f. 122.—England and Toronto, Canada.

GILES, Handb. of Gnats, 2d ed., 364, mentions oc. in Palestine.

MANSONIA.

BLANCHARD, Compt. Rend. Soc. Biol., No. 37, LIII, 1901, 1046.

THEOBALD, Monogr. of Culicidæ, II, 173, 1901 (*Panoplites*); III, 269, 1903, syn.

titillans WALKER, List, I, 5 (*Culex*).—Brazil.

F. LYNCH ARRIBALZAGA, Revista d. Mus. de la Plata, I, 390 (*Tæniorhynchus tæniorhynchus* WIED.).—Argentina.

THEOBALD, Monogr. of Culicidæ, II, 175, pl. XXX, f. 117, and pl. B (*Panoplites*); III, 273, oc.—Rio Janeiro and Br. Guiana; Trinidad, Antigua and Jamaica.

JOBLOTIA.

BLANCHARD, Compt. Rend. Soc. Biol., No. 37, LIII, 1043, 1901.

THEOBALD, Monogr. of Culicidæ, II, 283, 1901 (*Trichoprosopon*).

GILES, Handb. of Gnats, 2d ed., 367, 1902 (id.).

niveipes THEOBALD, Monogr. of Culicidæ, II, 285, pl. XXXV, f. 131 (*Trichoprosopon*); III, 334, figs., larvæ.—Trinidad; Brazil.

GILES, Handb. of Gnats, 2d ed., 367 (*Trichoprosopon*).

DEINOCERITES.

THEOBALD, Monogr. of Culicidæ, II, 215 and 343, 1901 (*Deinocerites* and *Brachiomyia*); III, 275, 1903, combined.

GILES, Handb. of Gnats, 2d ed., 472, 473 (*Deinokerides* and *Brachiomyia*), 1902.

cancer THEOBALD, Monogr. of Culicidæ, II, 215, pl. XXXII, f. 125, and pl. D; III, 276, figs. and extended notice—larva and pupa; breeds in crab-holes near seashore.—Jamaica, St. Lucia; St. Vincent, Barbadoes, Br. Guiana.

GILES, Handb. of Gnats, 2d ed., 472, figs.

magna THEOBALD, Monogr. of Culicidæ, II, 344 (*Brachiomyia*).—St. Lucia, W. I.

ÆDES.

MEIGEN, Syst. Besch., I, 13, 1818.

DESVOIDY, Mém. Soc. Hist. Nat. Paris, III, 403, 1827.

MACQUART, Hist. Nat. Dipt., I, 37, 1834.

ZETTERSTEDT, Dipt. Scand., IX, 3469, 1850.

SCHNER, Fauna Austr., II, 630, 1864.

THEOBALD, Monogr. of Culicidæ, II, 224, 1901; III, 286, 1903, table of species and of related genera.

GILES, Handb. of Gnats, 2d ed., 480, 1902.

JOHANNSEN, Bull. 68, N. Y. St. Mus., 424, 1903, tables of species by adults and larvæ.

fuscus OSTEN SACKEN, West. Dipt., 191.—Cambridge, Mass.

HOWARD, "Mosquitoes," 153, fig.

THEOBALD, Monogr. of Culicidæ, II, 226, pl. XXXII, f. 126; III, 286, notes.—High Park, Toronto.

GILES, Handb. of Gnats, 2d ed., 481.

DYAR, Proc. Ent. Soc. Wash., v, 145, larva, etc.; Jour. N. Y. Ent. Soc., x, 197, pl. XVII, f. 1, larva.—N. H.

- JOHANNSEN, Bull. 68, N. Y. St. Mus., 425, compiled desc. of larva.
- nigricorpus** THEOBALD, Monogr. of Culicidæ, II, 231.—Lower Amazon.
- GILES, Handb. of Gnats, 2d ed., 482, oc. in St. Lucia, W. I.
- pertinans** WILLISTON, see *Wycomyia*.
- perturbans** WILLISTON, Trans. Ent. Soc. Lond., 1896, 271, pl. VIII, f. 30.—St. Vincent, W. I.
- THEOBALD, Monogr. of Culicidæ, II, 235, quoted; *Wycomyia grayii* may be the same.
- GILES, Handb. of Gnats, 2d ed., 484.
- sapphirina** OSTEN SACKEN, see *Uranotania*.
- smithii** COQUILLETT, Canad. Ent., XXXIII, 260, 1901.—Lahaway, N. J.
- SMITH, Ent. News, XII, 189, note on habits—reared from water standing in pitcher plants (*fuscus*): XII, 254, notes and spec. ref.; Jour. N. Y. Ent. Soc., X, 10, biology—larvæ found only in pitcher plants, and can winter there.—N. J.
- DYAR, Jour. N. Y. Ent. Soc., IX, 178, figs., larva desc.
- JOHANNSEN, Bull. 68, N. Y. St. Mus., 425, pl. XLVII, f. 1-6, larva and pupa.—N. J.
- THEOBALD, Monogr. of Culicidæ, III, 295, quotes desc., and refers doubtfully to his new genus *Verrallina*, same page.

HOWARDINA.

- THEOBALD, Monogr. of Culicidæ, III, 287, 1903.
- walkerii** THEOBALD, Monogr. of Culicidæ, I, 424 (*Stegomyia*?); III, 288, fig.—Jamaica.

URANOTÆNIA.

- F. LYNCH ARRIBALZAGA, Revista d. Mus. de la Plata, I, 405, 1891.
- THEOBALD, Monogr. of Culicidæ, II, 241, 1901.
- GILES, Handb. of Gnats, 2d ed., 485, 1902.
- JOHANNSEN, Bull. 68, N. Y. St. Mus., 427, 1903.
- apicalis** THEOBALD, Monogr. of Culicidæ, III, 298, pl. XIV.—Antigua, W. I.
- lowii** THEOBALD, Monogr. of Culicidæ, II, 339; III, 301, notes.—St. Lucia; Trinidad, St. Vincent, and Para.
- GILES, Handb. of Gnats, 2d ed., 492.
- pulcherrima** F. LYNCH ARRIBALZAGA, Revista d. Mus. de la Plata, I, 407, pl. IV, f. 4.—Buenos Aires.
- THEOBALD, Monogr. of Culicidæ, II, 244, pl. XXXII, f. 128, and text figs.; III, 303, note.—Brazil; Antigua, W. I.
- sapphirina** OSTEN SACKEN, Trans. Amer. Ent. Soc., II, 47 (*Ædes*).—N. Y., D. C. HOWARD, Bull. 25, 47, fig. (*Ædes*).
- SMITH, Ent. News, XII, 153, under name of *Culex pungens*, reared from water contained in pitcher plants; see also p. 189, same vol.—N. J.
- THEOBALD, Monogr. of Culicidæ, II, 249.—D. C. Brooklyn, Ithaca, N. Y.
- GILES, Handb. of Gnats, 2d ed., 492.
- DYAR, Proc. Ent. Soc. Wash., V, 49 and 145, larvæ, etc.; Jour. N. Y. Ent. Soc., IX, 179, pl. XI, f. 1-4, life hist.—N. H. and Bellport, L. I.; in marshy pool.
- JOHANNSEN, Bull. 68, N. Y. St. Mus., 427, pl. XLVI, f. 8-15.
- socialis** THEOBALD, Monogr. of Culicidæ, II, 340.—Jamaica.
- GILES, Handb. of Gnats, 2d ed., 494.

ÆDEOMYIA.

THEOBALD, Monogr. of Culicidæ, II, 218, 1901.

GILES, Handb. of Gnats, 2d ed., 478, 1902 (*Ædomyia*).

squamipennis F. LYNCH ARRIBALZAGA, El Nat. Arg., I, 151, 1878 (*Ædes*); Revista d. Mus. de la Plata, I, 404, pl. III, f. 8 (id.).—Buenos Aires.

THEOBALD, Monogr. of Culicidæ, II, 219, pl. XXXI, f. 124, and pl. E; III, 307, oc.—Br. Guiana, Brazil, Trinidad, India.

GILES, Handb. of Gnats, 2d ed., 478, oc. in W. I.

HÆMAGOGUS.

WILLISTON, Trans. Ent. Soc. Lond., 1896, 271.

THEOBALD, Monogr. of Culicidæ, II, 238, 1901.

GILES, Handb. of Gnats, 2d ed., 485, 1902.

cyaneus FABRICIUS, Syst. Antl., 35 (*Culcr*).—S. A.

WIEDEMANN, Dipt. Exot., 8 (*Culcr*); Auss. Zweifl., I, 6 (id.).

WILLISTON, Trans. Ent. Soc. Lond., 1896, 272, pl. IX, f. 31 (*splendens*).—St. Vincent, W. I.

THEOBALD, Monogr. of Culicidæ, II, 239, pl. XXXII, f. 127; III, 308, notes.—Brazil, Br. Guiana and Trinidad.

WYEOMYIA.

THEOBALD, Monogr. of Culicidæ, II, 67, 1901; table of species, p. 268.

GILES, Handb. of Gnats, 2d ed., 495, 1902.

grayii THEOBALD, Monogr. of Culicidæ, II, 269, pl. XXXVI, f. 144; III, 311, notes.—St. Lucia, Grenada; Barbadoes.

GILES, Handb. of Gnats, 2d ed., 498.

pertinans WILLISTON, Trans. Ent. Soc. Lond., 1896, 271, pl. VIII, f. 29 (*Ædes*).—St. Vincent, W. I.

THEOBALD, Monogr. of Culicidæ, II, 272.

GILES, Handb. of Gnats, 2d ed., 483, 498.

PHONIOMYIA.

THEOBALD, Monogr. of Culicidæ, III, 311, 1903.

longirostris THEOBALD, Monogr. of Culicidæ, II, 275 and 277, pl. XXXI, f. 123 (*Wyeomyia longirostris* and *trinidadensis*); III, 311, figs.—Rio Janeiro and Trinidad.

DENDROMYIA.

THEOBALD, Monogr. of Culicidæ, III, 313, 1903.

luteoventralis THEOBALD, Monogr. of Culicidæ, II, 348 (*Wyeomyia*); III, 318, fig.—Brazil, Br. Guiana and Trinidad.

CORETHRA.

MEIGEN, Illig. Mag., II, 260, 1803; Syst. Besch., I, 14, 1818.

LOEW, Stett. Ent. Zeit., 1844, 121, divided the genus, erroneously assigning to this, the typical part of *Corethra*, the name *Mochlonyx*.

ZETTERSTEDT, Dipt. Scand., IX, 3470, 1850, in Meigen's sense.

SCHINER, Fauna Austr., II, 622, 1864 (*Mochlonyx*).

MEINERT, Overs. Kon. Danske Vid. Selsk. Forh., 1883, I, relations of *Corethra* and *Mochlonyx*; Eucephale Myggelarver, 422, 1886, biology of a European species, *culiciformis*.

ROEDER, Ent. Nachricht., 1885, 217, syn. of *Mochlonyx*.

THEOBALD, Mon. of Culicidæ, II, 303, 1901 (*Mochlonyx*).

GILES, Handb. of Gnats, 2d ed., 500, 1902 (id.).

COQUILLET, Canad. Ent., XXXV, 189, 1903, discussion of synonymy.

albipes JOHANNSEN, see *Sayomyia*.

appendiculata HERRICK, see *Sayomyia*.

brakeleyi COQUILLET, see *Corethrella*.

cinctipes COQUILLET, Canad. Ent., XXXV, 190.—Franconia, N. H.: Mt. Vernon, Va.

plumicornis FABRICIUS, see *Sayomyia*.

punctipennis SAY, see *Sayomyia*.

trivittata LOEW, see *Sayomyia punctipennis*.

SAYOMYIA.

COQUILLET, Canad. Ent., XXXV, 190, 1903, new name.

LOEW, Stett. Ent. Zeit., 1844, 121 (*Corethra* MEIGEN, restricted, but this was a mistake, as he placed the type of *Corethra* in his *Mochlonyx*).

SCHINER, Fauna Austr., II, 623, 1864 (*Corethra*).

THEOBALD, Monogr. of Culicidæ, II, 288, 1901 (id.).

GILES, Handb. of Gnats, 2d ed., 500, 1902 (id.).

JOHANNSEN, Bull. 68, N. Y. St. Mus., 392, 1903, table of species, etc. (*Corethra*).

albipes JOHANNSEN, Bull. 68, N. Y. State Mus., 399 (*Corethra*).—Ithaca, N. Y.
appendiculata HERRICK, Geol. and Nat. Hist. Surv. Minnesota, 1884, 10, pl. 5, larva only, vaguely described (*Corethra*).—Lake of the Isles, Minn.

JOHANNSEN, Bull. 68, N. Y. St. Mus., 394, quotes part of desc. (id.).

plumicornis FABRICIUS, Ent. Syst., IV, 246 (*Tipula*); Syst. Antl., 42 (*Chironomus*).—Europe.

MEIGEN, Klassif., I, 8, pl. I, f. 12 (*Corethra lateralis*); 34 (*Ceratopogon plumicornis*); Syst. Besch., I, 15 (*Corethra*).

SCHINER, Fauna Austr., II, 624, syn., etc. (*Corethra*).

THEOBALD, Monogr. of Culicidæ, II, 299 (id.).—Europe.

GILES, Handb. of Gnats, 2d ed., 503 (id.).

JOHANNSEN, Bull. 68, N. Y. St. Mus., 395, pl. XXXIX, var. *americana*; larva and pupa also desc. and fig. (id.).—N. J., Ill., N. Y., Minn.

MEINERT, Die Eucephale Myggelarver, 398-421, pl. II, f. 35-56, full and delightful account of biology, with history of its study by old writers (*Corethra*).—Europe.

White Mts., N. H.—Mrs. Slosson's List (id.).

punctipennis SAY, Jour. Acad. Sci. Phil., III, 16; Compl. Works, II, 43 (*Corethra*).—Pa.

WIEDEMANN, Auss. Zweifl., I, 14 (id.).

LOEW, Cent., II, I (*Corethra trivittata*).—Me.

ROEDER, Stett. Ent. Zeit., 1885, 338, oc. in Porto Rico (id.).

THEOBALD, Mon. Culicidæ, II, 296 (id.).

GILES, Handb. of Gnats, 2d ed., 502 (id.).

DYAR, Jour. N. Y. Ent. Soc., X, 201, pl. XIX, f. 2, larva in detail (*Corethra trivittata*).

JOHANNSEN, Bull. 68, N. Y. St. Mus., 397, quotes Say's and Loew's desc.; pl. XXXIX, f. II, larva (*Corethra*).—Ithaca, N. Y.

Yukon R. Alaska—O. S. Cat.; N. J.—Smith Cat.

PELOREMPIS.

JOHANNSEN, Bull. 68, N. Y. St. Mus., 402, 1903 (Aug. 11).

UNDERWOOD, Science, Aug. 7, 1903, mentioned as *Eucorethra*, an undescribed genus of Coquillett.

COQUILLET, Canad. Ent., Oct., 1903, 272 (*Eucorethra* UNDERWOOD). [Joh. in litt.]

americana JOHANNSEN, Bull. 68, N. Y. St. Mus., 403, pl. xli, larva and pupa desc. and fig.—Saranac Inn, N. Y.

UNDERWOOD, Science, Aug. 7, 1903, notes on habits (mentioned as *Eucorethra underwoodi*, an unpublished species of Coquillett).—Me. [Joh.]

COQUILLET, Canad. Ent., xxxv, 1903, 272 (*Eucorethra underwoodi* UNDERWOOD—sic).—Kaslo, B. C., and woods of Maine.

CORETHRELLA.

COQUILLET, Jour. N. Y. Ent. Soc., x, 191, 1902.

JOHANNSEN, Bull. 68, N. Y. St. Mus., 399, 1903.

brakeleyi COQUILLET, Ent. News, xiii, 85 (*Corethra*); Jour. N. Y. Ent. Soc., x, 192, note.—Lahaway, N. J.

SMITH, Canad. Ent., xxxiv, 139, notes on larval stages (*Corethra*).—N. J.

DYAR, Jour. N. Y. Ent. Soc., x, 200, pl. xix, f. 1, larva (*Corethra*).

JOHANNSEN, Bull. 68, N. Y. St. Mus., 399, pl. xl, larva, pupa and adult.—N. J.

MYCETOPHILIDÆ.

MYCETOBIA.

MEIGEN, Syst. Besch., i, 229, 1818.

ZETTERSTEDT, Dipt. Scand., x, 4069, 1851.

WINNERTZ, Mon., 666, 1863.

SCHINER, Fauna Austr., ii, 426, 1864.

divergens WALKER, Dipt. Saund., 418.—United States.

OSTEN SACKEN, Cat., 1878, p. 8, could not find the type in the British Museum.

marginalis ADAMS, Kans. Univ. Sci. Bull., ii, 21.—Atherton, Mo.

DITOMYIA.

WINNERTZ, Stett. Ent. Zeit., vii, 15, 1846; Mon., 668, 1863.

SCHINER, Fauna Austr., ii, 427, 1864.

euzona LOEW, Cent., ix, 1.—N. Y.

PLESIASTINA.

WINNERTZ, Stett. Ent. Zeit., vii, 15, 1846; Mon., 670, 1863.

SCHINER, Fauna Austr., ii, 428, 1864.

annulata MEIGEN, Syst. Besch., vi, 294 (*Mycetobia*).—Europe.

ZETTERSTEDT, Dipt. Scand., ix, 3447 (*Ceroplatus flavus*); x, 4072 (*Mycetobia*).

WALKER, List, i, 88 (*Symmerus ferrugineus*).

WINNERTZ, Mon. Pilzm., 670.

SCHINER, Fauna Austr., ii, 429.

SMITH, Cat. Ins. N. J., oc. in N. A.

bifasciata WILLISTON, Biologia, Dipt., Suppl., 217, pl. iv, f. 1.—Guerrero, Mex.

lauta LOEW, Cent., ix, 3.—N. Y.

tristis LOEW, Cent., ix, 2.—D. C.

ASINDULUM.

LATREILLE, Hist. Nat. Crust. et. Ins., XIV, 290, 1804.

WINNERTZ, Mon., 705, 1863.

SCHINER, Fauna Austr., II, 440, 1864.

coxale LOEW, Cent., IX, 4.—Huds. B. Terr.

montanum ROEDER, Wien. Ent. Zeit., VI, 116.—Wh. Mts.; N. H.

N. J.—Smith Cat.; Wh. Mts.—Slosson List.

CEROPLATUS.

BOSC, Actes Soc. d'Hist. nat. de Paris, I, 1, 42, 1792.

WINNERTZ, Mon., 684, 1863.

SCHINER, Fauna, II, 433, 1864.

apicalis ADAMS, Kans. Univ. Sci. Bull., II, 22.—Douglass Co., Kans.

bellulus WILLISTON, Biologia, Dipt., Suppl., 219, pl. IV, f. 3.—Tabasco, Mex.

carbonarius BOSC, Nouv. Dict. d'Hist. Nat., 1st ed., IV, 543; 2d ed., V, 585, pl. B, 21, f. 4.—Carolina.

FABRICIUS, Syst. Antl., 16.

WIEDEMANN, AUSS. ZW., I, 61 (*Platyura*).

DUFUR, Ann. des Sci. nat., 2d ser., XI, 202.

MACQUART, Dipt. Exot., I, 1, 77, pl. XI, f. 1.—All give Carolina as the locality.

clausus COQUILLETT, Proc., U. S. N. M., XXIII, 594.—N. H.; N. J.

Wh. Mts.—Slosson List.

fasciola COQUILLETT. See *Platyura*.

longimanus WILLISTON, Dipt. St. Vincent, 258, pl. VIII, f. 12.—St. Vincent, W. I.

PLATYURA.

MEIGEN, Illig. Mag., II, 264, 1803; Syst. Besch., I, 231, 1818.

ZETTERSTEDT, Dipt. Scand., X, 4076, 1851.

WINNERTZ, Mon., 689, 1863.

SCHINER, Fauna Austr., II, 435, 1864.

WILLISTON, Dipt. St. Vincent, 256, 1896, table of W. Indian species.

clausa COQUILLETT (of Smith's N. J. Cat.), see *Ceroplatus*.

diluta LOEW, Cent., IX, 9.—D. C. Also N. J.—Smith Cat.

divaricata LOEW, Cent., IX, 8.—Ga.

elegans COQUILLETT, Proc. Acad. Nat. Sci. Phil., 1895, 307.—Fla., N. C.

N. J.—Smith Cat.; White Mts., N. H.—Slosson.

elegantula WILLISTON, Biologia, Dipt., Suppl., 218, pl. IV, f. 2.—Gurrero, Mex.

fasciola COQUILLETT, Ent. News, V, 126 (*Ceroplatus*).—Wash. Can. Ent., XXVIII, 200, refers to this genus.

fascipennis SAY, Long's Exped., Appendix, 360; Compl. Works, I, 244.—N. W. Terr.

WIEDEMANN, AUSS. ZW., I, 61.—N. W. Terr.

fasciventris WILLISTON, Dipt. St. Vincent, 258, pl. VIII, f. 11.—St. Vincent, W. I.

gracilis WILLISTON, Kans. Univ. Quart., II, 60.—Wash.

ignobilis WILLISTON, Dipt. St. Vincent, 257, pl. VIII, f. 9.—St. Vincent, W. I.

inops COQUILLETT, Proc. U. S. N. M., XXIII, 594.—Del. Water Gap, N. J.

lurida COQUILLETT, Can. Ent., XXVII, 199.—Wash.

maudæ COQUILLETT, Can. Ent., XXVII, 199.—Wash.

melasoma LOEW, Cent., IX, 12.—D. C.

- mendica* LOEW, Cent., IX, 10.—N. Y.
mendosa LOEW, Cent., IX, 11.—D. C., Tenn. Also N. J.—Smith Cat.
notabilis WILLISTON, Kans. Univ. Quart., II, 59.—Wash.
parva WILLISTON, Dipt. St. Vincent, 257.—St. Vincent, W. I.
pectoralis COQUILLETT, Can. Ent., XXVII, 199.—Nev.
pictipennis WILLISTON, Dipt. St. Vincent, 257, pl. VIII, f. 10 (St. Vincent, W. I.);
 Biologia, Diptera, Suppl., 218, oc. in Guerro, Mex.
pulchra WILLISTON, Kans. Univ. Quart., II, 59.—Wash.
subterminalis SAY, Jour. Acad. Sci. Phil., VI, 152; Compl. Works, II, 430.—Ind.
tæniata WINNERTZ, Mon., 701.—Europe.
 SCHINER, Fauna Austr., II, 438.
 Identified from N. J. by Coquillett—Smith Cat.

TETRAGONEURA.

- WINNERTZ, Stett. Ent. Zeit., 1846, 5; Mon., 764, 1863.
 SCHINER, Fauna Austriaca, II, 451, 1864.
 LOEW, Mon. N. A. Dipt., I, 14, oc. in N. A., 1862.
bicolor COQUILLETT, Proc. U. S. N. M., XXIII, 595.—Franconia, N. H.
nitida ADAMS, Kans. Univ. Sci. Bull., II, 23—Atherton, Mo.
pimpla COQUILLETT, Proc. U. S. N. M., XXIII, 595.—Montgomery Co., Pa.

SCIOPHILA.

- MEIGEN, Syst. Besch., I, 245, 1818.
 ZETTERSTEDT, Dipt. Scand., XI, 4096, 1852.
 WINNERTZ, Mon., 707, 1863.
 SCHINER, Fauna Austr., II, 441, 1864.
angulata ADAMS, Kans. Univ. Sci. Bull., II, 22.—Manitou Park, Col.
appendiculata LOEW, Cent., IX, 19.—N. Y.
bifasciata SAY, Long's Exped., Appendix, 363; Compl. Works, I, 246.—N. W. Terr.
 WIEDEMANN, Auss. Zw., I, 62.
 "Perhaps a *Neocmpheria*," Loew, quoted by Osten Sacken, Cat., 9.
 Wh. Mts., N. H.—Slosson.
biseriata LOEW, Cent., IX, 20.—Red R. of the North.
diluta WILLISTON, Dipt. St. Vincent, 263, pl. VIII, f. 17.—St. Vincent, W. I.
flavohirta COQUILLETT, Proc. U. S. N. M., XXIII, 596.—Franconia, N. H.
grisea WALKER, see *Polylepta*.
hirticollis SAY, Long's Exped., Appendix, 362; Compl. Works, I, 246.—N. W. Terr.
 WIEDEMANN, Auss. Zw., I, 64.
 Wh. Mts., N. H.—Slosson.
littoralis SAY, Long's Exped., Appendix, 361; Compl. Works, I, 245.—Lake Superior.
 WIEDEMANN, Auss. Zw., I, 64.
 N. J.—Smith Cat.
nigricauda ADAMS, Kans. Univ. Sci. Bull., II, 23.—Colorado City, Colo.
obliqua SAY, Long's Exped., Appendix, 363; Compl. Works, I, 247.—N. W. Terr.
 WIEDEMANN, Auss. Zw., I, 63.
 Wh. Mts.—Mrs. Slosson.
obtruncata LOEW, Cent., IX, 18.—D. C.
onusta LOEW, Cent., IX, 17.—D. C.
popocatapetli BELLARDI, Saggio, I, II.—Mex., Mt. Popocatapetl.

pulchra JOHANNSEN, Ent. News, XIV, 14.—Axton, N. Y.

subcærulea COQUILLETT, Proc. U. S. N. M., XXIII, 595.—N. H., Pa., and Ottawa, Can.

tantilla LOEW, Cent., IX, 21.—D. C.

LASIOSOMA.

WINNERTZ, Mon., 748, 1863.

SCHINER, Fauna Austr., II, 448, 1864.

fasciata SAY, Jour. Acad. Sci. Phil., III, 26; Compl. Works, II, 50 (*Sciophila*).—Pa. and Md.

WIEDEMANN, Auss. Zw., I, 62 (id.).

OSTEN SACKEN, Cat., 10, gen. ref.

Beulah, N. M.—Skinner.

hirta MEIGEN, Syst. Besch., I, 251 (196) (*Sciophila*).—Europe.

ZETTERSTEDT, Ins. Lapp., 860 (*Sciophila pilosula*); Dipt. Scand. XI, 4133 (*Sciophila*).

WINNERTZ, Mon., 749.

SCHINER, Fauna Austr., II, 449.

LUNDBECK, Dipt. Groenlandica, 257, oc. in Greenland.

pallipes SAY, Long's Exped., Appendix, 361; Compl. Works, I, 245 (*Sciophila*).—N. W. Terr.

WIEDEMANN, Auss. Zw., I, 62 (id.).

OSTEN SACKEN, Cat., 10, gen. ref.

quadratura LOEW, Cent., IX, 22.—Me.

NEOEMPHERIA.

OSTEN SACKEN, Cat., 9, change of name, 1878.

WINNERTZ, Mon. 738, 1863 (*Empheria*, preoc.)

SCHINER, Fauna Austr., II, 446, 1864 (id.).

balioptera LOEW, Cent., IX, 13.—Ill. Also N. J.—Smith Cat.

didyma LOEW, Cent., VII, 9 (*Sciophila bimaculata*, preoc.); IX, 14, change of name and redescri.—English Riv., Canada.

N. J.—Smith Cat., and Montreal—Chagnon.

kincaidii COQUILLETT, Proc. Wash. Acad. Sci., II, 391.—Popoff Id., Alaska.

maculipennis WILLISTON, Dipt. St. Vincent, 262, pl. VIII, f. 16.—St. Vincent, W. I.

nepticula LOEW, Cent., IX, 15.—Ga. Also N. J.—Smith Cat.

POLYLEPTA.

WINNERTZ, Mon., 745, 1863.

SCHINER, Fauna Austr., II, 447, 1864.

fragilis LOEW, Cent., IX, 16.—Mass.

grisea WALKER, List, I, 92 (*Sciophila*).—Huds. Bay Terr.

White Mts., N. H.—Slosson.

leptogaster WINNERTZ, Mon., 746.—Europe.

SCHINER, Fauna Austr., II, 448.

COQUILLETT, Ent. News, Jan., 1902, oc. in White Mts., N. H.

tibialis COQUILLETT, Proc. U. S. N. M., XXIII, 596.—White Mts., N. H.

N. J.—Smith Cat.

DIOMONUS.

WALKER, List, I, 87, 1848.

TOWNSEND, Trans. Amer. Ent. Soc., XIX, 155, 1892; notes—doubts validity.

nebulosus WALKER, loc. cit.—Martin Falls, Canada.

ACNEMIA.

WINNERTZ, Mon., 798, 1863.

SCHINER, Fauna Austr., II, 461, 1864.

flaveola COQUILLETT, Proc. U. S. N. M., XXIII, 598.—Delaware Water Gap, N. J.
N. J.—Smith Cat.

psylla LOEW, Cent., IX, 34.—Md.

GNORISTE.

MEIGEN, Syst. Besch., I, 243, 1818.

ZETTERSTEDT, Dipt. Scand., XI, 409I, 1852.

WINNERTZ, Mon., 777, 1863.

SCHINER, Fauna Austr., II, 455, 1864.

grœnlandica LUNDBECK, Dipt. Grœnlandica, I, 259.—Greenland.

megarrhina OSTEN SACKEN, West. Dipt., 193.—Yosemite, Cal.
N. J.—Smith Cat.

PROBOLÆUS.

WILLISTON, Dipt. St. Vincent, 261, 1896.

singularis WILLISTON, loc. cit., pl. VIII, f. 15.—St. Vincent, W. I.

SYNTEMNA.

WINNERTZ, Mon., 767, 1863.

SCHINER, Fauna Austr., II, 452, 1864.

mutor ADAMS, Kans. Univ. Sci. Bull., II, 24.—Atherton, Mo.

polyzona LOEW, Cent., IX, 24.—Mid. States. Also N. J.—Smith Cat.

ANACLINIA.

WINNERTZ, Mon., 770, 1863.

SCHINER, Fauna Austr., II, 453, 1864.

nemoralis MEIGEN, Syst. Besch., I, 265 (*Mycetophila*).—Europe.

WINNERTZ, Mon., 771.

SCHINER, Fauna Austr., II, 454.

COQUILLETT, Proc. Wash. Acad. Sci., II, 394, oc. at Sitka, Alaska.

BOLETINA.

STAEGE, Krøyer's Tidskr., III, 234, 1840.

WINNERTZ, Mon., 762, 1863.

SCHINER, Fauna Austr., II, 454, 1864.

abdominalis ADAMS, Kans. Univ. Sci. Bull., II, 24.—Atherton, Mo.

arctica HOLMGREN, Ins. Nordgroenl., in Oefv. kongl. vetensk. Akad. Förh., 1872,
100.—North Greenland.

?RÜBSAAMEN, Bibl. Zoolog., 1898, 104, notes, etc., with a doubt.—Greenland.

LUNDBECK, Dipt. Groenl., I, 258, notes.

beringensis COQUILLETT, Dipt. of Commander Ids., 342 (*Neoglaphyoptera*).—

Bering Id. Gen. ref. corrected in Proc. U. S. N. M., XXIII, 599.

grœnlandica STAEGE, Groenl. Antliater, 17.—Greenland.

ZETTERSTEDT, Dipt. Scand., XI, 4154.

SCHLÖDTE, in Rink's Greenland, 68.

HOLMGREN, Ins. Nordgroenl., 105.

ZETTERSTEDT, Ins. Lapp., 862 (*Leia trivittata*, in part; from Greenl.)

LUNDBECK, Dipt. Groenl., I, 258.—Various parts of Greenland.

inops COQUILLET, Proc. Wash. Acad. Sci., 11, 391.—Alaska.

sciarina STAEGER, Kröyer's Tidskr., 111, 336.—Europe.

ZETTERSTEDT, Ins. Lapp., 866 (*Mycetophila obscurella*); Dipt. Scand., 11, 4159.

SCHINER, Fauna Austr., 11, 454.

RÜBSAAMEN, Bibl. Zool., 1898, 106, note, pl. VI, f. 27, 29.

LUNDBECK, Dipt. Groenl., 1, 258, oc. in Greenland.

White Mts., N. H.—Slosson.

tricincta LOEW, Cent., 19, 25.—Md., Wis. Also N. J.—Smith Cat.

LEPTOMORPHUS.

CURTIS, Brit. Ent., 365, 1831.

WINNERTZ, Mon., 769, 1863.

SCHINER, Fauna Austr., 11, 453, 1864.

hyalinus COQUILLET, Proc. U. S. N. M., 22, 598.—White Mts., N. H.

parvulus COQUILLET, loc. cit., 597.—Del. Water Gap, N. J.

LEIA.

MEIGEN, Syst. Besch., 1, 253, 1818.

ZETTERSTEDT, Dipt. Scand., 11, 4139, 1852.

WINNERTZ, Mon., 792, 1863.

SCHINER, Fauna Austr., 11, 459, 1864.

abbreviata LOEW, Cent., 19, 33.—Mid. States.

hopkinsii COQUILLET, Can. Ent., 22, 200 (*Mycetophila*).—W. Va. Refers to *Leia* in Proc. U. S. N. M., 22, 599.

punctata BELLARDI, Saggio, Appendix, 5, pl. III, f. 3.—Mex.

sororcula LOEW, Cent., 19, 32.—N. Y. Also N. J.—Smith Cat.

unicolor WALKER, List, 1, 93.—Hudson's Bay Terr.

EPICYPTA.

WINNERTZ, Mon., 909, 1863.

SCHINER, Fauna Austr., 11, 482, 1864.

pulicaria LOEW, Cent., 19, 41.—Pa.

punctum STANNIUS, Observ. de Mycet., 16, f. 4, 1831.—Europe.

WINNERTZ, Mon., 910.

SCHINER, Fauna Austr., 11, 483.

Occurs in N. J.—Smith Cat.

DOCOSIA.

WINNERTZ, Mon., 802, 1863.

SCHINER, Fauna Austr., 11, 462, 1864.

dichroa LOEW, Cent., 19, 35.—D. C.

longicornis COQUILLET, Proc. U. S. N. M., 22, 597.—White Mts., N. H.

obscura COQUILLET, loc. cit., 597.—White Mts., N. H.

vittata COQUILLET, loc. cit., 597.—Franconia, N. H.

PTHINIA.

WINNERTZ, Mon., 779, 1863.

SCHINER, Fauna Austr., 11, 456, 1864.

fraudulenta WILLISTON, Dipt. St. Vincent, 263, pl. VIII, f. 18.—St. Vincent, W. I.

tanypus LOEW, Cent., 19, 26.—N. Y.

PHRONIA.

WINNERTZ, Mon., 875, 1863.

SCHINER, Fauna Austr., II, 1864.

rustica WINNERTZ, Mon., 875.—Europe.

SCHINER, Fauna Austr., II, 472.

LUNDBECK, Dipt. Groenl., I, 262, oc. in Greenland.

ZYGOMYIA.

WINNERTZ, Mon., 901, 1863.

SCHINER, Fauna Austr., II, 480, 1864.

ignobilis LOEW, Cent., IX, 39.—Mid. States.

ornata LOEW, Cent., IX, 40.—Pa.

NEOGLAPHYROPTERA.

OSTEN SACKEN, Catalogue, 1878, change of name.

WINNERTZ, Mon., 781, 1863 (*Glaphyroptera*, preoc.).

SCHINER, Fauna Austr., II, 456, 1864 (id.).

amabilis WILLISTON, Biologia, Dipt., Suppl., 219.—Mexico, several places.

beringensis COQUILLETT, see *Boletina*.

bivittata SAY, Jour. Acad. Sci. Phil., VI, 152; Compl. Works, II, 351 (*Leia*).—Indiana.

VAN DER WULP, Tijdschr. v. Ent., XI, 131, pl. III, f. 3, 4 (*lateralis*).—Wis.

[Syn. by Loew, in O. S. Cat.]. Also N. J.—Smith Cat. I have seen the species from Kans., Ia., and Wis.

cincta COQUILLETT, Proc. Acad. Nat. Sci., 1895, 308.—Fla.

concinna WILLISTON, Dipt. St. Vincent, 259.—St. Vincent, W. I.

cuneola ADAMS, Kans. Univ. Sci. Bull., II, 25.—Colorado Spr., Colo.

decora LOEW, Cent., IX, 28.—Ga.

lineola ADAMS, Kans. Univ. Sci. Bull., II, 25.—Kern Co., Calif.

melæna LOEW, Cent., IX, 27.—N. Y.

nitens WILLISTON, Dipt. St. Vincent, 259, pl. VIII, f. 13.—St. Vincent, W. I.

oblectabilis LOEW, Cent., IX, 31.—Mid. States.

opima LOEW, Cent., IX, 29.—Conn. Also N. J.—Smith Cat.

striata WILLISTON, Kans. Univ. Quart., II, 60.—Wash.

sublunata LOEW, Cent., IX, 30.—N. Y.

varia WALKER, List I, 93 (*Leia*).—Huds. Bay Terr.

ventralis SAY, Long's Exped., Appendix, 364; Compl. Works, I, 247 (*Leia*).—N. W. Terr.

WIEDEMANN, Auss. Zw., I, 65 (id.). Also N. J.—Smith Cat. (*Leia*), and

White Mts., N. H.—Slosson, the last referred to this genus by Coquillett.

winthemii LEHMANN, Ins. Spec. Nonnullæ, etc., 18, 1822 (*Leia*).—Europe.

MEIGEN, Syst. Besch., VI, 296 (id.)

SAY, Long's Exped., Appendix, 365; Compl. Works, I, 248 (*Mycetophila maculipennis*).—N. W. Terr. [Loew, in O. S. Cat.].

WIEDEMANN, Auss., Zw., I, 66 (id.).

WALKER, List I, 93 (*Leia trifasciata*).—Huds. Bay Terr. [Loew, in O. S. Cat.]. Also White Mts., N. H.—Slosson.

WINNERTZ, Mon., 789. SCHINER, Fauna Austr., II, 457.

ODONTOPODA.

ALDRICH, 21st Report Geol. Ind., 1896, 187 (published 1897).

sayi ALDRICH, loc. cit., 187, fig.—Marengo Cave, Ind.

TRICHONTA.

- WINNERTZ, Mon., 847, 1863.
 SCHINER, Fauna Austr., II, 469, 1864.
fæda LOEW, Cent., IX, 38.—Mid. States.
obesa WINNERTZ, Mon., 854.—Europe.
 SCHINER, Fauna Austr., II, 469.
 LUNDBECK, Dipt. Groenlandica, I, 261, oc. in Greenland.
perspicua VAN DER WULP, Tijdschr. v. Ent., XXIV, 142.—Quebec.
 N. J.—Smith Cat.
vulgaris LOEW, Cent., IX, 37.—D. C.

RHYMOSIA.

- WINNERTZ, Mon., 810, 1863.
 SCHINER, Fauna Austr., II, 463, 1864.
filipes LOEW, Cent., IX, 36.—Conn.

ALLODIA.

- WINNERTZ, Mon., 826, 1863.
 SCHINER, Fauna Austr., II, 466, 1864.
crassicornis STANNIUS, Observ. de Mycetophil., 1831, 22 (*Mycetophila*).—Europe.
 ZETTERSTEDT, Dipt. Scand., XI, 423 (*Mycetophila spinicoxa*) [Schiner].
 WINNERTZ, Mon., 828.
 SCHINER, Fauna Austr., II, 467.
 Oc. in N. A. reported by Loew in O. S. Cat.—Md., Pa.

BRACHYCAMPTA.

- WINNERTZ, Mon., 833, 1863.
 SCHINER, Fauna Austr., II, 468, 1864.
unicolor LUNDBECK, Dipt. Groenlandica, I, 260.—Greenland.

MYCOTHERA.

- WINNERTZ, Mon., 913, 1863.
 SCHINER, Fauna Austr., II, 483, 1864.
paula LOEW, Cent., IX, 42.—Mid. States.

EXECHIA.

- WINNERTZ, Mon., 879, 1863.
 SCHINER, Fauna Austr., II, 475, 1864.
analis COQUILLETT, Proc. U. S. N. M., XXIII, 598.—Del. Water Gap, N. J.
fungorum DEGEER, Ins., VI, 142 (*Tipula*).—Europe.
 LATREILLE, Gen. Crust., IV, 264 (*Mycetophila fusca*) [Meigen].
 MEIGEN, Syst. Besch., I, 266 (268) (id.).
 MACQUART, Hist. Nat. Dipt., I, 134 (id.).
 ZETTERSTEDT, Dipt. Scand., XI, 4235 (id.).
 WINNERTZ, Mon., 886.
 SCHINER, Fauna Austr., II, 478.
 LUNDBECK, Dipt. Groenlandica, I, 262, oc. in Greenland.
interrupta ZETTERSTEDT, Dipt. Scand., XI, 4240 (*Mycetophila*).—Europe.
 WINNERTZ, Mon., 896.
 SCHINER, Fauna Austr., II, 477.
 LUNDBECK, Dipt. Groenlandica, I, 262, oc. in Greenland.



MYCETOPHILA.

MEIGEN, Illig. Mag., II, 263, 1803; Syst. Besch., I, 260, 1818.

ZETTERSTEDT, Dipt. Scand., X, 4170, 1852.

WINNERTZ, Mon., 915, 1863.

SCHINER, Fauna Austr., II, 484, 1864.

bifasciata WALKER, List I, 96—Martin Falls, Canada.

White Mts., N. H.—Slosson.

bipunctata LOEW, Cent., IX, 44.—Wis. Also N. J.—Smith Cat.

contigua WALKER, List I, 96.—Nova Scotia. Also N. J.—Smith Cat.

despecta WALKER, List I, 101.—Martin Falls, Canada.

discoidea SAY, Jour. Acad. Sci. Phil., VI, 153; Compl. Works, II, 351.—Indiana.

dolosa WILLISTON, Dipt. St. Vincent, 264.—St. Vincent, W. I.

extincta LOEW, Cent., IX, 43.—Mid. States.

fallax LOEW, Cent., IX, 50.—Mid. States.

hopkinsii COQUILLETT, see *Leia*.

ichneumonea SAY, Jour. Acad. Sci. Phil., III, 16; Compl. Works, II, 43.—Pa.

WIEDEMANN, Auss. Zw., I, 67.

Beulah, N. M.—Skinner.

inculta LOEW, Cent., IX, 46.—Mid. States.

insipiens WILLISTON, Dipt. St. Vincent, 264, pl. VIII, f. 19.—St. Vincent, W. I.

læta WALKER, List I, 97.—Nova Scotia.

monochæta LOEW, Cent., IX, 54.—D. C.

mutica LOEW, Cent., IX, 45.—Mid. States.

nodulosa WILLISTON, Dipt. St. Vincent, 264, pl. VIII, f. 20.—St. Vincent, W. I.

nubila SAY, Jour. Acad. Sci. Phil., VI, 153; Compl. Works, II, 351.—Ind.

✓ *obscura* WALKER, List I, 101.—Martin Falls, Canada. Also N. J.—Smith Cat.,
and White Mts., N. H.—Slosson.

parva WALKER, List I, 97.—Martin Falls, Canada.

pinguis LOEW, see *Dynatosoma*.

plebeja WALKER, List I, 100.—Martin Falls, Canada.

polita LOEW, Cent., IX, 53.—N. Y.

procera LOEW, Cent., IX, 55.—N. Y.

propinqua WALKER, List I, 96.—Nova Scotia.

punctata MEIGEN, Klassifikation, 91; Syst. Besch., I, 264 (the latter as *punctata*,
semicincta and *cunctans*); VI, 30 (*trivialis*); VII, 43 (*unicolor*), 44 (*rufa*
MACQ.).—Europe. [Winnertz.]

FABRICIUS, Syst. Antl., 58 (*Sciara striata*). [Winnertz.]

ZETTERSTEDT, Dipt. Scand., XI, 4200.

WINNERTZ, Mon., 916.

SCHINER, Fauna Austr., II, 484.

LUNDBECK, Dipt. Groenl., I, 262, oc. in Greenland.

Axton, N. Y.—M. & H.; N. J.—Smith Cat.; White Mts., N. H.—Slosson;
Montreal—Chagnon.

Note.—The authorities all omit Meigen's description in his Klassifikation, thus giving Fabricius priority; Coquillett, however, gives me this reference, the work being inaccessible to me.

quatuornotata LOEW, Cent., IX, 52.—Md.

sericea SAY, Long's Exped., Appendix, 365; Compl. Works, I, 248.—N. W. Terr.

WIEDEMANN, Auss. Zw., I, 66.

sigmoides LOEW, Cent., IX, 51.—Mid. States. Also N. J.—Smith Cat.; White
Mts., N. H.—Slosson.

trichonota LOEW, Cent., IX, 49.—D. C.

umbratica ALDRICH, 21st Rept. Geol. Indiana, 1896, 186, fig.—Shiloh Cave, Ind.

DYNATOSOMA.

WINNERTZ, Mon., 947, 1863.

SCHINER, Fauna Austr., II, 491, 1864.

COQUILLET, Can. Ent., XXVII, 201, 1895.

fulvida COQUILLET, Can. Ent., XXVII, 200.—Wash.

Beulah, N. M.—Skinner.

pinguis LOEW, Cent., IX, 47 (*Mycetophila*).—English Riv., Br. Amer.

White Mts., N. H.—Slosson (determined and referred to this genus by

COQUILLET, as is the following species).

scalaris LOEW, Cent., IX, 48 (*Mycetophila*).—Mid. States.

N. J.—Smith Cat.; White Mts., N. H.—Slosson.

thoracica COQUILLET, Proc. U. S. N. M., XXIII, 598.—Ill. and White Mts., N. H.

BOLITOPHILA.

MEIGEN, Syst. Besch., I, 220, 1818.

ZETTERSTEDT, Dipt. Scand., X, 4053, 1851.

WINNERTZ, Mon., 672, 1863.

SCHINER, Fauna Austr., II, 429, 1864.

cinerea MEIGEN, Syst. Besch., I, 221, pl. VIII, f. 1, 2.—Europe.

MACQUART, Hist. Nat. Dipt., I, 126.

ZETTERSTEDT, Dipt. Scand., X, 4057.

WINNERTZ, Mon., 674.

SCHINER, Fauna Austr., II, 430.

OSTEN SACKEN, Cat., 8, occurrence in N. A., authority of Loew.

disjuncta LOEW, in O. S. Cat., is a MS. species.

fusca MEIGEN, see *hybrida*.

hybrida MEIGEN, Klassifikation, I, 47 (*Macrocera*); Syst. Besch., I, 221, pl. VIII, f. 1, 2 (*fusca*).—Europe.

DUFOR, Ann. d. Sc. Nat., 1839, 20 (*Macrocera*).

CURTIS, Brit. Ent., VIII, 581 (*Messala saundersii*).

WALKER, Ent. Mag., III, 179 (*maculipennis*).

WINNERTZ, Mon., 673.

SCHINER, Fauna Austr., II, 430.

White Mts.—Slosson (det. Coquillett.)

montana COQUILLET, Proc. U. S. N. M., XXIII, 593.—Mt. Wash, N. H.

MACROCERA.

MEIGEN, Illig. Mag., II, 261, 1803; Syst. Besch., I, 222, 1818.

WINNERTZ, Mon., 675, 1864.

SCHINER, Fauna Austr., II, 430, 1864.

clara LOEW, Cent., IX, 6.—D.C. Also N. J.,—Smith Cat.

concinna WILLISTON, Dipt. St. Vincent, 255, pl. VIII, f. 7.—St. Vincent, W. I.

WILLISTON, Biologia, Dipt., I, 217, oc. in Guerrero, Mex.

diluta ADAMS, Kans. Univ. Sci. Bull., II, 22.—Arizona.

formosa LOEW, Cent., IX, 8.—N. Y. Also N. J.,—Smith Cat.

hirsuta LOEW, Cent., IX, 5.—D. C. Also N. J.,—Smith Cat.

ALDRICH, 21st Rept. Geol. Indiana, 1896.—Truitt's Cave, Ind.

immaculata JOHNSON, Canad. Ent., 1902, 240.—Pa., N. Y.

inconcinna LOEW, Cent., IX, 7.—D. C. Also White Mts., N. H.,—Slosson.

nebulosa COQUILLET, Proc. U. S. N. M., XXIII, 594.—N. H., N. J.

DIADOCIDIA.

RUTHE, Isis, XI, 1210, 1831.

WINNERTZ, Mon., 665, 1863.

SCHINER, Fauna Austr., II, 426, 1864.

borealis COQUILLETT, Proc. Wash. Acad. Sci., II, 390.—Lowe Inlet, Br. Col.

ferruginosa MEIGEN, Syst. Besch., VI, 294 (*Mycetobia*).—Europe.

SCHINER, Fauna Austr., II, 426.

COQUILLETT, Proc. Wash. Acad. Sci., II, 390, oc. in White Mts., N. H.

EPIDAPUS.

HALIDAY, Ins. Brit., Dipt., I, 7, 1851.

SCHINER, Fauna Austr., II, 416, 1864.

WINNERTZ, Mon. Sciarinen, 182, 1867.

scabiei HOPKINS, Proc. Ent. Soc. Wash., III, 149-159, full life hist., etc.; 20 figs.—West Va.; larva causes a form of scab in potatoes.

HOPKINS, Special Bull. W. Va. Exp. Station, No. 2, 97-106, figs., life hist., etc. Both papers issued in 1895.

HOWARD, Ins. Life, VII, 279, oc. in Missouri.

EUGNORISTE.

COQUILLETT, Proc. Ent. Soc. Wash., III, 321, 1896.

MIK, Wien. Ent. Zeitung, 1896, 300, doubts relation to *Gnoriste*; 1897, 39, says is entirely different, and quotes Osten Sacken's opinion (*in litt.*) that it is a *Sciara*.

occidentalis COQUILLETT, loc. cit.—Las Cruces, N. M.

Note.—The species is common on golden-rod in fall at Moscow, Idaho; I consider it a distinct genus of the Sciarinæ, not closely related to *Gnoriste*.

ZYGONEURA.

MEIGEN, Syst. Besch., VI, 304, 1830.

SCHINER, Fauna Austr., II, 416, 1864.

WINNERTZ, Mon. Sciarinen, 186, 1867.

sciastica WILLISTON, Dipt. St. Vincent, 286, pl. VIII, f. 24.—St. Vincent, W. I.

toxoneura OSTEN SACKEN, Proc. Ent. Soc. Phil., 1862, 165 (*Sciara*).—D. C. Gen. ref. in Cat., 13.

TRICHOSIA.

WINNERTZ, Mon. Sciarinen, 173, 1867.

hebes LOEW, Cent., IX, 58.—N. Y.

SCIARA.

MEIGEN, Illig. Mag., II, 263, 1803; Syst. Besch., I, 276, 1818.

LATREILLE, Hist. nat. Crust. et Ins., XIV, 288 (*Molobrus*), 1804.

ZETTERSTEDT, Dipt. Scand., X, 3711, 1851.

SCHINER, Fauna Austr., II, 417, 1864.

WINNERTZ, Mon. Sciarinen, II, 1867: a classic monograph of the European species of the subfamily.

WILLISTON, Dipt. St. Vincent, 265, table of St. Vincent species.

LINTNER, 10th N. Y. Rept., 387, 391, extended bibliographical notes.

Note.—For the occurrence in this country of the march of masses of larvæ, called "Heerwurm" in Germany, and "Snake-worm" in the United States, see

GLOVER, Rept. Dept. Ag., 1872, 115; two cases in Va., with figs. of larva and fly.

RILEY and HOWARD, Insect Life, iv, 1891, 214.

WEBSTER, Science, Feb. 23, 1894, 109.

E. D. COPE, letter to Osten Sacken, published in Psyche, 1897, 75.

FELT, 16th N. Y. Rept., 992-994, 1901, at Franklin, N. Y.

For *Sciara* sp. infesting roots of grass, see FORBES, Ill. Report, 1883, 57, pl. iv, f. 5-9.

For occurrence of *Sciara* in caves, see ALDRICH, 21st Report Geol. Ind., 1896, 186; also below.

abbreviata WALKER, List 1, 109.—Martin Falls, Canada. Also N. J.—Smith Cat., and White Mts., N. H.—Slosson.

I consider Walker's three-line description quite unrecognizable.

agraria FELT, in Lintner's 12th N. Y. Report, 225, pl. vi, f. 5, 6, 10. N. Y.; collected in a mushroom cellar.

alternata RÜBSAAMEN, Bibl. Zool., xx, Lief. 4, 106.—Greenland.

americana WIEDEMANN, Auss. Zw., 1, 68.—Brazil.

SCHINER, Novara, 11, Brazil and Columbia; would include *atra* McQ. and *cognata* and *precipua* WALKER, all South American, in the synonymy.

OSTEN SACKEN, Biologia, Dipt., 1, 1, oc. in Mexico and Central America; remarks on the synonymy.

RILEY, Amer. Nat., 1881, 150 (The Yellow Fever Fly), biology.

WILLISTON, Biologia, Dipt., Suppl., 221, oc. in several places in Mex.

aprilina MEIGEN, Syst. Besch., 1, 285 (223).—Europe.

ZETTERSTEDT, Dipt. Scand., x, 3754.

SCHINER, Fauna Austr., 11, 424.

LUNDBECK, Dipt. Groenl., 1, 250, oc. in Greenland.

atra MACQUART, Dipt. Exot., 1, 1, 78.—Brazil.

BELLARDI, Ditt. Mess., 1, 12, oc. in Mexico.

See *americana*.

atrata SAY, Long's Exped., App., 366; Compl. Works, 1, 249.—N. W. Terr.

WIEDEMANN, Auss. Zw., 1, 70.

attenuata RÜBSAAMEN, Bibl. Zool., 1898, Heft xx, Lief. 4, 106.—Greenland.

LUNDBECK, Dipt. Groenl., 1, 242, pl. v, f. 1 (*latipennis*) [Lundbeck]. Greenland.

biformis LUNDBECK, Dipt. Groenl., 1, 256.—Greenland.

borealis RÜBSAAMEN, Bibl. Zool., 1898, Lief. 4, 109, pl. vi, f. 14.—Greenland.

COQUILLET, Proc. Wash. Sci., 11, 392, oc. in Sitka, Alaska.

caldaria LINTNER, Lintner, 10th N. Y. Report, 397, figs.—Boise, Idaho; larvæ in greenhouse pots.

cochleata RÜBSAAMEN, Bibl. Zool., 1898, Lief. 4, 108, pl. vi, f. 22.—Greenland

?RÜBSAAMEN, loc. cit., 107 (*marginata*) [Lundbeck, with ?] Greenland.

LUNDBECK, Dipt. Groenl., 1, 247, pl. v, f. 6 (*hæmorrhoidalis*) [Lundbeck].—Greenland.

concinna WILLISTON, Dipt. St. Vincent, 266.—St. Vincent, W. I.

coprophila LINTNER, 10th N. Y. Rept., 391.—New York. The Manure Fly; desc. of habits, etc.

debilis WILLISTON, Dipt. St. Vincent, 266, pl. viii, f. 22.—St. Vincent, W. I.

delectata WILLISTON, Dipt. St. Vincent, 267.—St. Vincent, W. I.

dimidiata SAY, Species of American Insects found by Jos. Barabino, sec. ed., 15; Compl. Works, 1, 308.—New Orleans, La.

exigua SAY, Long's Exped., App., 367; Compl. Works, 1, 249.—N. W. Terr.

WIEDEMANN, Auss. Zw., 1, 69.

- exilis** SAY, Jour. Acad. Sci. Phil., vi, 154; Compl. Works, ii, 352.—Ind.
expolita COQUILLET, Proc. Wash. Acad. Sci., ii, 392.—Sitka, Alaska.
femorata SAY, Jour. Acad. Sci. Phil., iii, 78; Compl. Works, ii, 70.—Pa.
 WIEDEMANN, Auss. Zw., i, 70.
flavipes PANZER, Fauna Germ., ciii, 15, 1806.—Europe.
 MEIGEN, Syst. Besch., i, 283; vi, 306.
 STAEGE, Dipt. Dan., 1840, 286; Groenl. Antl., 1845, 357, oc. in Greenland.
 ZETTERSTEDT, Dipt. Scand., x, 3762.
 SCHINER, Fauna Austr., ii, 424.
 MACQUART, Hist. Nat. Dipt., i, 149.
 WALKER, Dipt. Brit., iii, 55.
 WINNERTZ, Mon. Sci. Fin., 133.
forcipulata LUNDBECK, Dipt. Groenl., i, 244.—Greenland.
fraterna SAY, Long's Exped., App., 367; Compl. Works, i, 249.—N. W. Terr.
 WIEDEMANN, Auss. Zw., i, 69.
fuliginosa FITCH, 2d N. Y. Rept., 487 (*Molobrus*).—N. Y.
 N. J.—Smith Cat.
fulvicauda FELT, in Lintner's 12th N. Y. Rept., 227, pl. vi, f. 7, 13.—Reared from
 decaying blackberry roots, New Jersey.
fumatella LUNDBECK, Dipt. Groenl., i, 249.—Greenland.
germana WILLISTON, Dipt. St. Vincent, 266, pl. viii, f. 21.—St. Vincent, W. I.
gigantea MACQUART, Dipt. Exot., Suppl. i, 19.—Colombia.
 BELLARDI, Saggio, i, 13, oc. in Mexico.
 OSTEN SACKEN, Biologia, Dipt., i, 2, oc. in Guatemala and Costa Rica.
glacialis RÜBSAAMEN, Bibl. Zool., 1898, Lief. 4, 109, pl. vi, f. 16.—Greenland.
glacialis LUNDBECK, Dipt. Groenl., i, 254.—Greenland.
 The one by RübSaamen is prior.
 See *humicola*.
groenlandica HOLMGREN, Ins. Nordgroenl., 104.—Greenland.
 COQUILLET, Proc. Wash. Acad. Sci., ii, 392, oc. in Popoff Ids., Alaska.
hæmorrhoidalis LUNDBECK, see *cochleata*.
humicola LUNDBECK, Dipt. Groenl., i, 252.—Greenland. Op. cit., ii, 313, perhaps
 is same as *glacialis*.
inconstans FITCH, 2d N. Y. Report, 487 (*Molobrus*).—N. Y.
 COQUILLET, Amer. Nat., xxxi, 385, oc. in Mammoth Cave, Ky.; comp. with
 type; larva in decaying apple in the cave.
 CHITTENDEN, Bull. 27, n. s., Div. of Ent., 108, figs.; habits,—injurious in
 greenhouses.—N. Y.; Ottawa; Me.; Pa.; N. J.; Va.; Ill.; O.; Nebr.
 HINE, Ent. News, Sept. 1899, 201, figs., no desc.; larva bores inside stems
 of carnations (Det. by Dept. of Agric.).
iridipennis ZETTERSTEDT, Ins. Lapp., 827.—Lapland. Dipt. Scand., x, 3740.
 STAEGE, Groenl. Antl., 357, 1845, oc. in Greenland.
 COQUILLET, Proc. Wash. Acad. Sci., ii, 392, oc. in Alaska.
latipennis LUNDBECK, see *attenuata*.
lurida WALKER, List, i, 106.—Trenton Falls, N. Y. Dipt. Saund., 418.
mali FITCH, 2d N. Y. Report, 485 (*Molobrus*).—New York. In burrows of cod-
 ling moth in apple.
marginata RÜBSAAMEN, see *cochleata*.
multisetula FELT, in Lintner's 12th N. Y. Report, 223, pl. vi, f. 11.—N. J. Larva
 reared from mushrooms.
nigra WIEDEMANN, Dipt. Exot., 44; Auss. Zw., i, 68.—Savannah, Ga.
 BEULAH, N. M.—Skinner.
ocellaris OSTEN SACKEN, of Comstock, see *Cecidomyia*.

- ochrolabis* LOEW, Cent., ix, 57.—N. Y. Also White Mts., N. H.—Slosson.
- pauciseta* FELT, in Lintner's 12th N. Y. Report, 224, pl. vi, f. 12.—N. J. Larva bred from decaying potatoes.
- perpusilla* WALKER, List, i, 106.—Martin Falls, Canada.
- polita* SAY, Long's Exped., App., 366; Compl. Works, i, 249.—N. W. Terr. WIEDEMANN, Auss. Zw., i, 70. Also N. J.—Smith Cat.
- prolifera* FELT, in Lintner's 12th N. Y. Report, 226.—Mass. In greenhouses.
- punctata* WALKER, List, i, 106.—N. Amer.
- robusta* WALKER, List, i, 105.—Martin Falls, Canada.
- rotundipennis* MACQUART, Dipt. Exot., i, 2, 178.—Carolina. BELLARDI, Saggio, i, 13, oc. in Mexico.
- sciophila* LOEW, Cent., ix, 56.—D. C.
- septemtrionalis* RÜBSAAMEN, Bibl. Zool., 1898, Lief. 4, 109, pl. vi, f. 12.—Greenland.
- LUNDBECK, Dipt. Groenl., ii, 312, note.
- striata* RÜBSAAMEN, Berl. Ent. Zeitsch., 1894, 37.—Mex.
- tilicola* OSTEN SACKEN, quoted by Comstock, Ag. Report, 1881, with gall, and this by Packard, 5th Report U. S. Ent. Comm., 412. I do not find the original desc.,—it may not have been previously described.
- tridentata* RÜBSAAMEN, Bibl. Zool., 1898, Lief. 4, 107, pl. vi, f. 13, 24.—Greenland. COQUILLETT, Proc. Wash. Acad. Sci., ii, 392, oc. in Lowe Inlet, Br. Col. LUNDBECK, Dipt. Groenl., i, 243, pl. v, f. 2 (*validicornis*). [Lundbeck.]
- tritici* COQUILLETT, Ins. Life, vii, 406, figs., life hist., etc.—D. C. Larvæ live at the roots of young wheat plants.
- unicolor* SAY, Jour. Acad. Sci. Phil., vi, 153; Compl. Works, ii, 351.—Mex.
- validicornis* LUNDBECK, see *tridentata*.
- vulgaris* FITCH, 2d N. Y. Report, 487 (*Molobrus*).—N. Y. Also White Mts.,—Slosson.
- zygoneura* WILLISTON, Dipt. St. Vincent, 267, pl. viii, f. 23.—St. Vincent, W. I.

MANOTA.

WILLISTON, Dipt. St. Vincent, 260, 1896.

Note.—The wing having a very incomplete venation, I cannot place the genus in any of the established subfamilies.

defecta WILLISTON, loc. cit., pl. viii, f. 14.—St. Vincent, W. I.

HESPERODES.

COQUILLETT, Ent. News, 1900, 429.

Note.—This genus is said to be "near *Hesperinus*," which Osten Sacken, after seeing the type, placed in the Bibionide.

johnsoni COQUILLETT, loc. cit.—Delaware Water Gap, N. J.

CECIDOMYIDÆ.

There are peculiar difficulties in the task of properly representing this family in the present Catalogue. On account of the fact that many species make galls on plants, we encounter here a mixture of botanical and zoological science, which has tended to separate the study of the Cecidomyidæ from that of the other Diptera. Only those who have made a special study of the family are at all informed about it. Unfortunately, not one of the present generation of American entomologists has given this special attention.

To make matters ten-fold worse, the European specialists in Cecidomyidæ

have come to a practical unanimity in accepting certain principles of nomenclature which radically change the generic names used by Osten Sacken, who followed Loew. The change hinges on the application of the name *Cecidomyia* (disregarding for the time being the new genera which have naturally come into existence), and will be found fully discussed in the following papers:

KARSCH, Revision der Gallmücken, Münster, 1878, 10-20.

OSTEN SACKEN, Catalogue, 215, note 1, 1878.

RÜBSAAMEN, Berl. Ent. Zeitsch., XXXVII, 324-327, 1892.

KIEFFER, Annales Soc. Ent. France, 1900, 436.

OSTEN SACKEN, Ent. Mo. Mag., 1901, 40-43.

The practical effect of the changes adopted by Karsch, Rübsaamen and Kieffer is to apply the name *Cecidomyia* to the *Diplosis* of Osten Sacken's Catalogue, and to divide up his *Cecidomyia* between *Rhabdophaga* and *Dasyneura*. As nearly all the species in the family were referred to *Cecidomyia* and *Diplosis* in Osten Sacken's Catalogue, the adoption of the changed nomenclature will leave few members of the family in the same genera to which Osten Sacken referred them.

Realizing the immense practical disadvantage of such an overturning of names, I should have been well content to let the problems of nomenclature lie in abeyance; but they have been already threshed out in Europe, and the conclusions reached and put in use there cannot be ignored.

After much consideration, I can find no better course to follow than to adopt the generic distribution of Kertész, in his Catalogus Dipteriorum, vol. II. Not having much knowledge of the family myself, and not being able to consult an American authority on it, I have carried out this plan. I take occasion to remark, however, that Osten Sacken thoroughly disapproves of the changes, and has given, in the last reference above, his reasons for his views.

Some of the species still included under *Cecidomyia* doubtless belong to other established genera, but are not yet sufficiently described to allow of a positive reference; in fact, many of the species need further study, and at best the present scheme must be considerably modified by more thorough investigation. No family of the Diptera offers greater inducements to a worker who will patiently carry on the biological and systematic study of it conjointly.

The status of those names which have been applied to larvæ and galls only, or to pupæ, larvæ and galls, or even to galls alone, need not be settled at the present time. I have placed all such names in a division by themselves. My opinion is that when the adult is at last described, the same old specific name should be used, unless impracticable, but that thenceforth the description of the adult should be regarded as the real description of the species. Meanwhile, it is very convenient, and thoroughly in accord with the objects of nomenclature, that the provisional name should stand.

A few species described since Kertész have been added, in harmony with his general distribution.

Cross-references have not been thought necessary, considering the small size of the family.

The European literature is voluminous; Kieffer gives over 800 references. His Monographie des Cécidomyiides d'Europe et d'Algérie, in Annales Soc. Ent. France, 1900, 181-472, 30 plates, is indispensable to any student of the family. I add here only a few references.

COMSTOCK, Dept. Agric. Rept., 1880, 270, 271, list of references on parasitic and inquilinous species.

BRAUER, Zweifl. d. Kaiserl. Mus., III, 1883, 20 and 53, references to descriptions of larvæ.

MIK, Wien. Ent. Zeit., xvi, 284-289, on mounting and describing specimens.

OSTEN SACKEN, Western Dipt., 192, 1877, describes several galls without naming them.

MRS. SLOSSON, Ent. News, vii, 238, a species attaching itself to wing of a lace-wing fly to be carried about.

SMITH, Dept. Agric. Rept., 1884, 396-398, a species infesting pears in Conn.

RILEY and HOWARD, Ins. Life, iii, 294, note on a species destroying buds of roses grown under glass—see *Neocerata rhodophaga*.

TRICHOPTEROMYIA.

WILLISTON, Trans. Ent. Soc. Lond., 1896, 255.

modesta WILLISTON, loc. cit., pl. viii, f. 6.—St. Vincent, W. I.

CAMPYLOMYZA.

MEIGEN, Syst. Besch., i, 101, 1818.

LOEW, Mon. N. A. Dipt., i, 178, 1862.

SCHINER, Fauna Austr., ii, 411, 1864.

atra MEIGEN, Syst. Besch., i, 102; vi, 271.—Europe.

ZETTERSTEDT, Dipt. Scand., ix, 3670.

SCHINER, Fauna Austr., ii, 412.

WINNERTZ, Verh. Zool.-Bot. Ges., xx, 25.

LUNDBECK, Dipt. Grœnl., i, 239, oc. in Greenland.

scutellata SAY, Jour. Acad. Sci. Phil., iii, 17; Compl. Works, ii, 44.—Mo.

WIEDEMANN, Auss. Zweifl., i, 22.

LESTREMIA.

MACQUART, Dipt. Nord. de la France, i, 123, 1826; Hist. Nat. Dipt., i, 157, 1834.

LOEW, Stett. Ent. Zeit., v, 324, 1844 (*Cecidogona*).

SCHINER, Fauna Austr., ii, 413, 1864.

leucophæa MEIGEN, Syst. Besch., i, 281 (*Sciara*); vi, 308, pl. LXV, f. 16.—Europe.

ZETTERSTEDT, Dipt. Scand., x, 3768.

SCHINER, Fauna Austr., ii, 413.

COQUILLET, Ent. News, 1896, 263, records from White Mts., N. H.

LASIOPTERA.

MEIGEN, Syst. Besch., i, 88, 1818.

WINNERTZ, Mon. Gallmücken, 191, 1853.

OSTEN SACKEN, Mon. N. A. Dipt., i, 175, 1862.

SCHINER, Fauna Austr., ii, 406, 1864.

carbonitens COCKERELL, Canad. Ent., xxxiv, 183.—Las Valles, N. M.; larvæ in "aborted shoots of grass."

ephedræ COCKERELL, Ann. & Mag. Nat. Hist., ser. vii, vol. ii, 327.—N. M.; bred from *Ephedra trifurca*.

ephedricola COCKERELL, Canad. Ent., xxxiv, 184.—Mesilla Park, N. M.; gall on *Ephedra trifurca*, a swelling of the twig.

muhlenbergiæ MARTEN, Bull. Ohio Ex. Sta., Technical ser., i, No. 3, p. 155.—Ohio; gall in tip of *Muhlenbergia mexicana*, shown in pl. ii, f. 6.

parva WALKER, List, i, 29.—Martin Falls, Canada.

- solidaginis** OSTEN SACKEN, Proc. Ent. Soc. Phil., 1, 370.—D. C.; larvæ probably inquilinous in galls on *Solidago*.
- tertia** COCKERELL, Ann. and Mag. Nat. Hist., ser. VII, vol. II, 328.—N. M.
- ventralis** SAY, Long's Exped., App., 357; Compl. Works, 1, 242.—Philadelphia.
WIEDEMANN, Auss. Zw., 1, 21.
- vitis** OSTEN SACKEN, Mon. N. A. Dipt., 1, 201.—D. C.; larvæ in "swellings of the stem and leafstalks of the wild grape."
WALSH and RILEY, Amer. Ent., 1, 1869, 247, fig. of gall.
RILEY, 5th Mo. Rept., 1873, 117, fig. of gall.—Mo.
REED, 13th Rept. Ent. Soc. Ontario, 1883, 49, fig.—Canada.
SAUNDERS, Insects. Inj. to Fruits, 295, fig.
LINTNER, Country Gentleman, XLIV, 407, 1879; LIII, 511, 1888; Fourth N. Y. Rept., 63-67.—N. Y.
N. J.—Smith Cat.
- willistonii** COCKERELL, Ann. and Mag. Nat. Hist., ser. VII, vol. II, 327.—N. M.; bred from *Atriplex canescens*.

RHABDOPHAGA.

- WESTWOOD, Gardener's Chronicle, 1847, 588.
H. LOEW, Dipt. Beitr., IV, 21, 1850 (*Cecidomyia* MEIG., in part).
RONDANI, Atti Soc. Sc. Nat. Milano, II, 286, 1860 (id.).
RÜBSAAMEN, Berl. Ent. Zeitsch., XXXVII, 346 (*Dichelomyia*, in part).
KIEFFER, Bull. Soc. Ent. France, 1896, 189 (*Berticaria*).
- batatas** WALSH, Proc. Ent. Soc. Phil., III, 601; VI, 225 (both *Cecidomyia salicis-batatas*).—Rock Id., Ill.; makes a potato-like, polythalamous gall on *Salix humilis* and other species.
BERGENSTAMM and LOEW, Synopsis, 71, note.
N. J.—Smith Cat.
- brassicoides** WALSH, Proc. Ent. Soc. Phil., III, 577; Amer. Entomologist, I, 105, f. 84 (both *Cecidomyia salicis-brassicoides*).—Rock Id., Ill.; makes a cabbage-like gall on *Salix longifolia*.
PACKARD, Guide to the Study of Insects, 377, f. 282 (id.).—Ill., etc.
TOWNSEND, Canad. Ent., XXVII, 205, oc. in Arizona; parasites, etc. (id.).
N. J.—Smith Cat.
- cornu** WALSH, Proc. Ent. Soc. Phil., III, 590, gall and larva (*Cecidomyia salicis-cornu*); VI, 224, adult (id.).—Rock Id., Ill.; gall a deformed, hornlike lateral bud of *Salix humilis*.
- gnaphaloides** WALSH, Proc. Ent. Soc. Phil., III, 583, all stages (*Cecidomyia salicis-gnaphaloides*).—Rock Id., Ill.; gall a rather open cone on *Salix humilis*.
Additional notes, op. cit., VI, 223.
- rhodoides** WALSH, Proc. Ent. Soc. Phil., III, 586, all stages (*Cecidomyia salicis-rhodoides*).—Rock Id., Ill.; rose-like single gall on tip of twig of *Salix humilis*.
Additional note, VI, 224.
- salicis** SCHRANK, Fauna Boica, III, 69, 1803 (*Tipula*).—Europe.
LOEW, Dipt. Beitr., IV, 37 (*Cecidomyia*).
WINNERTZ, Linnæa Ent., VIII, 215 (id.).
SCHINER, Fauna Austr., II, 370 (id.).
RÜBSAAMEN, Berl. Ent. Zeitsch., XXXVII, 347, pl. VIII, XII, XV, and XVIII (*Dichelomyia*).
FELT, 17th N. Y. Rept., 1902, 750, figs. and pl. II, oc. in N. Y.; "produces many-celled galls in the stems of small willows."

siliqua WALSH, Proc. Ent. Soc. Phil., III, 591; VI, 224 (both *Cecidomyia salicis-siliqua*).—Rock Id., Ill.; makes a pod-like gall on *Salix humilis*, *cordata*, and *discolor*.

BAKER, Ent. News, VI, 173, oc. at Fort Collins, Col., on *S. amygdaloides*.

strobiliscus WALSH, Proc. Ent. Soc. Phil., III, 582, gall only; VI, 223 (both *Cecidomyia salicis-strobiliscus*).—Winnebago Co., Ill.; a pine-cone-like gall on *Salix rostrata*.

✓ **strobiloides** WALSH, Proc. Ent. Soc. Phil., III, 580, all stages (*Cecidomyia salicis-strobiloides*).—Rock Id., Ill.; makes a pine-cone-like gall on *Salix rostrata*.

OSTEN SACKEN, Mon. N. A. Dipt., I, 203, gall (id.).

RILEY and WALSH, Amer. Entomologist, I, 105, f. 82 (id.).

BERGENSTAMM and LÖW, Synopsis, 71, suggest that *rhodoides*, *gnaphaloides*, *strobiliscus* and *coryloides* may all be the same as this; quoted by Osten Sacken, Cat., 215.

PETTIT, Bull. 186, Mich. Ex. Sta., oc. at Chatham, Northern Mich. (id.).

N. J.—Smith Cat.

DASYNEURA.

RONDANI, Nuovi Annal. Sc. Nat. Bologna, ser. 2, VI, 12, 1846; op. cit., 371, note (*Perrisia*).

LOEW, Dipt. Beitr., IV, 21, 1850 (*Cecidomyia* MEIG., in part).

RÜBSAAMEN, Berl. Ent. Zeitsch., XXXVII, 346, 1892 (*Dichelomyia*, in part).

grossulariæ FITCH, Trans. N. Y. State Agl. Soc., 1854, 880; 1st N. Y. Rept., 176; 2d Rept., 150; 3d Rept., 437 (all *Cecidomyia*).—N. Y.; larvæ in gooseberries

hirtipes OSTEN SACKEN, Mon. N. A. Dipt., I, 195 (*Cecidomyia*).—D. C., on *Solidago*.

leguminicola LINTNER, Canad. Ent., 1879, 44 and 121; Amer. Nat., 1879, 190 (*trifolii*); Rept. Ent. Soc. Ont., 1879, 128; 5th N. Y. Rept., 262; 13th Rept., 359 (all *Cecidomyia*).—N. Y.; larvæ in clover heads, destroying the seed; "The Clover-seed Midge."

COMSTOCK, Rept. Dept. Agric., 1879, 193 (id.).

SAUNDERS, Rept. Ent. Soc. Ont., 1881, 38, fig. (id.).

FORBES, Ill. Rept., 1888, 15, note on first oc. in Ill. (id.).

RILEY and HOWARD, Ins. Life, I, 142, notes; oc. in Ohio (id.).

ORMEROD, Ins. Life, III, 293, oc. in England; Rept. on Inj. Ins., 1890, 23 (id.).

pseudacaciæ FITCH, 2d N. Y. Rept., 331 (*Cecidomyia*); 5th N. Y. Rept., 833 (id.).—N. Y.; the larvæ in young leaflets of locust, *Robinia pseudacacia*.

PACKARD, 5th Rept. U. S. Ent. Comm., 368, abstract of Fitch.

N. J.—Smith Cat.

rhois COQUILLET, Ins. Life, VII, 348 (*Cecidomyia*).—N. Y.; galls on the roots of poison ivy, *Rhus toxicodendron*.

serrulatæ OSTEN SACKEN, Mon. N. A. Dipt., I, 198 (*Cecidomyia*).—D. C., on *Alnus serrulata*.

TOWNSEND, Proc. Ent. Soc. Wash., II, 388, desc. of gall (*Cecidomyia*).—Va. N. J.—Smith Cat.

solidaginis LOEW, Mon. N. A. Dipt., I, 194, pl. I, f. 8 (*Cecidomyia*).—D. C., on *Solidago*.

N. J.—Smith Cat.

? **spongivora** WALKER, List, I, 30 (*Cecidomyia*).—Martin Falls, Canada.

Gen. ref. by Kertész, but very doubtful.

strobiloides TOWNSEND, Psyche, 1894, 176 (*Cecidomyia bigeloviae-strobiloides*).—N. M.; makes galls on *Bigelovia*.

trifolii Löw, Verh. Zool.-Bot. Ges., 1874, 143 (*Cecidomyia*).—Europe; larvæ in fold of the leaf of white clover.

COMSTOCK, Dept. Agric. Rept., 1879, 197-199, pl. 1, f. 5, oc. in U. S., life hist., etc. (id.).

NEOCERATA.

COQUILLET, Bull. 22, n. ser., Div. of Ent., 1900, 47.

rhodophaga COQUILLET, loc. cit., with fig.—D. C.; infests buds of roses grown under glass.

ASPHONDYLIA.

LOEW, Dipt. Beitr., iv, 21, 1850.

WINNERTZ, Mon. Gallmücken, 187, 1853.

OSTEN SACKEN, Mon. N. A. Dipt., 1, 176, 1862; Trans. Amer. Ent. Soc., 1869, 299.

SCHINER, Fauna Austr., II, 395, 1864.

atriplicis TOWNSEND, Ann. and Mag. Nat. Hist., xxvii, 1893, 1021 (*Cecidomyia*).—N. M.; on *Atriplex canescens*. Gall only described.

COCKERELL, op. cit., xxix (id.).—N. M.

Gen. ref. by Cockerell in litt., and doubtfully in footnote in Jour. N. Y. Ent. Soc., vi, 204.

conspicua OSTEN SACKEN, Trans. Amer. Ent. Soc., III, 51 (*rudbeckiae-conspicua*).—Pa., on *Rudbeckia triloba*.

globulus OSTEN SACKEN, Trans. Amer. Ent. Soc., II, 301 (*helianthi-globulus*).—Rock Id., Ill., on *Helianthus*.

MARTEN, Psyche, 1888, 102 (id.).—Ill.

gutierreziae COCKERELL, Canad. Ent., xxxiii, 23.—Las Vegas, N. M., on *Gutierrezia sarothrae*.

mentzeliae COCKERELL, Entomologist, Nov., 1900, 302.—Raton, N. M., breeding in ovaries of *Mentzelia multiflora*.

monachia OSTEN SACKEN, Trans. Amer. Ent. Soc., II, 300; III, 347; Biologia, Dipt., I, 1 (oc. and biology).—N. Y.; Mexico; bred in N. Y. from *Solidago altissima*.

neomexicana COCKERELL, Jour. N. Y. Ent. Soc., iv, 204 (*Cecidomyia*).—N. M.; makes galls on *Atriplex canescens*. Gen. ref. by Cockerell in litt., and also doubtfully in footnote under description.

prosopidis COCKERELL, Ann. and Mag. Nat. Hist., 1898.—N. M., on *Prosopis juliflora* var. *glandulosa*.

recondita OSTEN SACKEN, Canad. Ent., Nov., 1875.—Long Id., N. Y., on *Aster patens*.

RHOPALOMYIA.

RÜBSAAMEN, Berl. Ent. Zeitsch., xxxvii, 370, 1892.

tridentatae RÜBSAAMEN, Ent. Nachricht., xix, 163, 1893.—N. A., on *Artemisia tridentata*.

OLIGOTROPHUS.

LATREVILLE, Hist. Nat. Crust. et Ins., xiv, 288, 1805.

H. LOEW, Dipt. Beiträge, iv, 21, 1850 (*Cecidomyia* MEIG., in part).

RÜBSAAMEN, Berl. Ent. Zeitsch., xxxvii, 376, 1892.

betulae WINNERTZ, Linnæa Ent., viii, 234 (*Cecidomyia*).—Europe; the larvæ infest the catkins of white birch, *Betula alba*.

SCHINER, Fauna Austr., II, 381 (id.).

F. Löw, Verh. Zool.-Bot. Ges., 1878, 15, pl. iv, f. 4 (id.).

WACHTL, Entom. Biol. Stud., ser. 1, 1878, 9-11, on var. of *Betula pendula* (id.).

LINTNER, Country Gentleman, LI, 287, 1886, oc. in N. A.; 3d N. Y. Rept., 85, 86, 141, 143; 4th Rept., 27, 205, 206 (parasites); 11th Rept., 162-165, pl., life hist., etc. (all *Cecidomyia*).

RÜBSAAMEN, Berl. Ent. Zeitsch., XXXVII, 377, pl. VII and XII.

MAYETIOLA.

KIEFFER, Miscellanea Entomologica, Jan., 1896; Wien. Ent. Zeit., xv, 89, 1896.

Note.—The only North American representative is the well-known "Hessian Fly," so-called from the supposition that it was introduced from Europe along with the Hessian soldiers in the Revolution. It has uniformly been referred to the genus *Cecidomyia* in the past by American writers. The larva injures young wheat plants; it is found between the stalk and the sheathing portion of one of the lower leaves.

The literature is very voluminous. Kertész, in his Catalogue, II, 76, gives three pages of references; Osborn, in Bull. 16, mentioned below, gives a far more lengthy list. I give a few of the early references, paying more attention to the newer publications, since the time of Osborn's paper. From the first, the articles are biological and economic in their scope. The European references are omitted here.

destructor SAY, Jour. Acad. Sci. Phil., 1, 45, pl. III, f. 1-3; Compl. Works, I, 4—Eastern U. S.

FITCH, Amer. Quart. Jour. Ag. and Sci., iv, 244-264, 1846; v, 1-27, 1847; revised and republished, Trans. N. Y. State Ag. Soc., 1846, 316-373, 1 pl.; 3d N. Y. Rept., 133-144; 7th Rept., 819-830, pl. III, f. 2, 3; 8th Rept., 685, note.

PACKARD, Bull. 4, U. S. Ent. Comm.; full life hist. and figs.; the same with additions, 3d Rept. U. S. Ent. Comm., 198-248, pl. iv, v; also in the appendix to the third Report is a transl. of an article by Löw and Wagner.

FORBES, Ill. Rept., 1885, 14; 1886, 21-34; 1890, 54-63.—Ill. and Mississippi Valley generally.

LINTNER, 5th N. Y. Rept., 263, notes.

RILEY, Ins. Life, 1, 32, 107, 131, 322; Dept. Agric. Rept., 1891, 235; 1892, 158; 1893, 211,—various notes on life history, parasites, etc.

MARTEN, Ins. Life, III, 265, notes on habits.

RILEY and HOWARD, Ins. Life, III, 306, affecting grasses in Cal.

WEBSTER, Ins. Life, VI, 146, general article.

LUGGER, 2d Rept. Ent. Minn. Ex. Sta., 1896, 11-15, good figure.

OSBORN, Bull. 16, n. ser., Div. of Ent., 1896; full discussion, bibliog., etc.

ASHMEAD, Psyche, 1897, 135, parasites.

JOHNSON, Bull. 58, Md. Ex. Sta., 1898, 117-122, figs.

MARLATT, Farmers' Bull. 132, Dept. of Agric.

FLETCHER, Rept. Ent. and Bot., 1898, 173; 1899, 163.

PETTIT, Bull. 175, Mich. Ex. Sta., 1899, 358; repeated in the Annual Rept. for same year, 137.

STEDMAN, 34th Annual Rept. Bd. of Agric. of Mo., 75-86.

HOPKINS, Bull. 67, W. Va. Ex. Sta., 1900.

LOCHHEAD, Bull. 116, Ont. Ag. Coll. and Ex. Sta., 1901.

FELT, 17th N. Y. Rept., 1902, 705-730, figs. and pl.

GARMAN, Bull. 103, Ky. Ex. Station, 1902, experiments.

WASHBURN, Bull. 77, Minn. Ex. Sta., 1-7, figs.; Canad. Ent., xxv, 317, notes.

Note.—The species occurs in Europe and New Zealand.

BREMIA.

RONDANI, Atti Soc. Sci. Nat. Milano, II, 287, 1860.

cucumeris LINTNER, 11th N. Y. Rept., 165-168, pl. II (*Diplosis*).—Mass.; the larva transforms smaller leaves of musk-melon into hairy galls. Called "The Melon-vine Midge."

CONTARINIA.

RONDANI, Atti Soc. Sci. Nat. Milano, II, 287, 1860.

KIEFFER, Bull. Soc. Ent. France, LXIII, 28, 1894 (*Eudiplosis* and *Stictodiplosis*); Wien. Ent. Zeit., xv, 94, 1896, syn., etc.

pyrivora RILEY, Dept. Agric. Rept., 1885, 283, pl. VII, f. 2-4 (*Diplosis*).—E. U. S.; larvæ in fruit of pears.

? MEIGEN, Klassifikation, I, 39, pl. II, f. 8 (*Cecidomyia nigra*); Syst. Besch., I, 95, pl. III, f. 11 (id.).—Europe.

? NORDLINGER, Die Kleine Feinde d. Landwirthschaft, 622, 1869 (*Cecidomyia pyricola*).—Europe.

RILEY, Wien. Ent. Zeit., VI, 203, f. 1-3 (*Diplosis*).

MEADE, Entomologist, XXI, 123-131, 1888 (id.).

LINTNER, 8th N. Y. Rept., 140-151, full discussion, bibliog., etc. (id.); 10th Rept., 386, 387, notes (id.); Canad. Ent., XXIII, 223, abstract of habits and oc. (id.).—N. Y.

SMITH, Ent. News, IV, 297-299, experiments for destruction of (id.).

KIEFFER, Synops. Cécid. Europe et Alg., 33, 1898, oc. in Europe.

setigera LINTNER, 11th N. Y. Rept., 168-170, pl. III.—Mass.; affects young leaves of musk-melons the same as *Contarinia cucumeris*; "The Hairy Melon-vine Midge."

tritici KIRBY, Trans. Linn. Soc., IV, 246 (*Tipula*).—England; larvæ in wheat heads.

HARRIS, Ins. Inj. to Veg., 592 (*Cecidomyia*).—Mass.

FITCH, Essay on the Wheat Fly, 1845 (*Cecidomyia*); 3d N. Y. Rept., 1-88, pl. II, f. 1, 4 (id.).—N. Y. Called "The Wheat Midge."

AMYOT, Bull. Soc. Ent. France, CIV, 1855 (id.).

LINTNER, 1st N. Y. Rept., 6, republishes Fitch's cut, etc. (id.).

WEBSTER, Dept. Agric. Rept., 1884, 389; 1885, 318 (*Diplosis*).

KIEFFER, Wien. Ent. Zeit., xv, 99, gen. ref.; Synops. Cécid. Europe et Alg., 34.

FLETCHER, Rept. Ent. and Bot., 1898, 172 (*Diplosis*).

MARLATT, Farmers' Bull. 132, Dept. of Agric. (id.).

LOCHHEAD, Bull. 116, Ont. Ag. Coll. and Ex. Sta., 7, 8, fig. (id.).

violicola COQUILLETT, Bull. 22, n. ser., Div. of Ent., 47-50, fig. (*Diplosis*).—Va., N. Y., D. C.; infesting and folding leaves of violets.

HOWARD, Amer. Florist, Jan. 21, 1899 (id.).

GALLOWAY, "Commercial Violet Culture," 211-215, fig. (id.).

CHITTENDEN, Bull. 27, n. ser., Div. of Ent., 47-50, pl. and figs. (id.).

CECIDOMYIA.

MEIGEN, Illig. Mag., II, 261, 1803; Klassifikation, 1804.

- LOEW, Dipt. Beitr., iv, 20, 1850 (*Diplosis*).
- OSTEN SACKEN, Mon. N. A. Dipt., i, 175, 1862; Ent. Mo. Mag., sec. ser., xii, 40, 1901 (id.).
- KARSCH, Revis. d. Gallmücken, 19, 1878.
- RÜBSAAMEN, Berl. Ent. Zeitsch., xxxvii, 324, 1892.
- aceris* SHIMER, Trans. Amer. Ent. Soc., i, 281.—Ill.; larva on surface of leaves of *Acer dasycarpum*.
- albovittata* WALSH, Proc. Ent. Soc. Phil., iii, 620; vi, 227.—Rock Id., Ill.; inquilinous in galls of *strobiloides*, *strobiliscus*, *brassicoides* and *rhodoides*.
- alticola* COCKERELL, The Entomologist, 1890, 281.—Col.
- BAKER, Ent. News, vi, 173, oc. at Ft. Collins, Col., affecting *Artemisia dracunculoides*.
- amyotii* FITCH, 3d N. Y. Rept., 31.—N. Y.
- ananassi* RILEY, Amer. Ent., ii, 244, 273, f. 153 (gall) (*cupressi-ananassi*).—Tenn., on *Taxodium distichum*.
- annulipes* WALSH, Proc. Ent. Soc. Phil., iii, 629 (*Diplosis*).—Rock Id., Ill.; inquilinous in galls of *strobiloides*.
- antennariæ* WHEELER, Proc. Wis. Nat. Hist. Soc., Apr., 1899, 209-212, all stages.—Wis.; galls in terminal buds of *Antennaria plantaginifolia*.
- anthophila* OSTEN SACKEN, Trans. Amer. Ent. Soc., ii, 302.—N. Y.; larvæ on *Solidago*.
- atricornis* WALSH, Proc. Ent. Soc. Phil., iii, 628 (*Diplosis*).—Rock Id., Ill.; inquilinous in galls of *strobiloides*.
- atriplicicola* COCKERELL, Ann. Mag. Nat. Hist., ser. 7, ii, 236 (*Diplosis*).—N. M., on *Atriplex*.
- atrocularis* WALSH, Proc. Ent. Soc. Phil., iii, 626; vi, 227 (*Diplosis*).—Rock Id., Ill.; bred from galls of *strobiliscus* and from a Cynipid gall.
- bigeloviae* COCKERELL, West Amer. Scientist, vi, 106; Ent. Mo. Mag., 1890, 324.—Col.; bred from gall of *Eurosta bigeloviae*—from some knowledge of the various gall-insects of Bigelovia, I think this may be an error, and that it is much more likely to be one of the species with an independent gall.
- bullæ* WALSH, Proc. Ent. Soc. Phil., vi, 228 (*Diplosis helianthi-bullæ*).—Rock Id., Ill.; makes a globular gall on leaves of *Helianthus*.
- BRODIE, Biol. Rev. of Ont., i, 1894, 74, oc. in Ont.
- caryæ* OSTEN SACKEN, Mon. N. A. Dipt., i, 191 (*Diplosis*).—D. C.; forms galls on leaves of hickory.
- catalpæ* COMSTOCK, Rept. Dept. Agric., 1880, 266 (*Diplosis*).—D. C.; larvæ in pods of Catalpa. They have the power of jumping.
- caulicola* COQUILLET, Ins. Life, vii, 401 (*Diplosis*).—N. H.; larvæ in stems of garden poppy, *P. nudicaule*.
- chrysopsidis* LOEW, Mon. N. A. Dipt., i, 203, pl. i, f. 1.—D. C.; on *Chrysopsis mariana*.
- ? TOWNSEND, Proc. Ent. Soc. Wash., ii, 389, notes on gall, perhaps not the same.
- coccidarum* COCKERELL, The Entomologist, 1892, 181; Proc. Acad. Nat. Sci. Phil., 1894, 419 (both *Diplosis*).—Jamaica.
- COQUILLET, Proc. U. S. N. M., xxii, 249, oc. in Porto Rico; "Bred from larvæ associated with *Dactylopius citri* . . . and bred from *Lecanium hemisphericum*."
- cornuta* WALSH, Proc. Ent. Soc. Phil., iii, 625,—gall, pupa, imago.—Rock Id., Ill., on *Salix longifolia*.
- coxsæ* SHIMER, Trans. Amer. Ent. Soc., ii, 395.—Ill.; on hickory.
- frater* COCKERELL, The Entomologist, 1890, 280.—Colo.

- gleditchiæ** OSTEN SACKEN, Proc. Ent. Soc. Phil., VI, 219.—R. I., on *Gleditchia triacanthos*. N. J.—Smith Cat.
- graminis** FITCH, 6th N. Y. Rept., 832, pl. II, f. 2, name changed and redesc.; Essay on the Wheat-fly (*cerealis*, preoc.).—N. Y.
- ? grassator** FYLES, Canad. Ent., XIV, 237, fig.; Rept. Ent. Soc. Ont., 1883, 30 (both ? *Diplosis*).—Ontario.
- inimica** FITCH, 6th N. Y. Rept., 830-832.—N. Y.; in wheat heads with tritici.
- maccus** LOEW, Mon. N. A. Dipt., I, 187, pl. I, f. 11, 12 (*Diplosis*).—D. C.
- negundinis** GILLETTE, Psyche, 1890, 392, figs.—Iowa; larvæ produce galls in terminal buds of *Acer negundo*.
- orbitalis** WALSH, Proc. Ent. Soc. Phil., III, 623; VI, 227.—Rock Id., Ill.; inquilinous in galls of *batatas*, *strobiloides* and *brassicoides*; also in those of *Euura salicis-ovum*, a sawfly.
- oxycoccana** JOHNSON, Ent. News, X, 80, 1899, change of name; Ent. News, XI, 324, quotes orig. desc.; "infests the terminal buds of cranberry and loosestrife (*Lysimachia terrestris*)."—N. J.
SMITH, Special Bull. K, N. J. Ex. Sta., 31-37, figs., 1890 (*vaccinii*, preoc.).—N. J.
- parthenicola** COCKERELL, The Entomologist, July, 1900, 201 (*Diplosis*).—N. M.
- pictipes** WILLISTON, Trans. Ent. Soc. Lond., 1896, 253 (*Diplosis*).—St. Vincent, W. I.
- pilulæ** WALSH, Amer. Ent., II, 29, gall only (*quercus-pilulæ*).—Ill., on laurel-leaved oak.
PACKARD, 5th Rept. U. S. Ent. Comm., 206, 207, fig. of gall, and notes on adult.
- radiatæ** SNOW, Ent. News, XI, 489, figs. (*Diplosis*).—Palo Alto, Cal.; larva in young shoots of *Pinus radiata* and other *Pinus*.
CANNON, Amer. Nat. Oct., 1900, 801-810, figs.,—a botanical study of the gall.
- resinicola** OSTEN SACKEN, Trans. Amer. Ent. Soc., III, 345 (*Diplosis*).—N. Y.; in the resin of *Pinus inops*. The description is reprinted in Ent. Nachrichten, 1896, 343-345.
SANBORN, Proc. Bost. Soc. Nat. Hist., XII, 93, larva only.
COMSTOCK, Rept. Dept. Agric., 1879, 256, pl. VI, f. 5, life history; larva in resin of *Pinus inops*, *rigida* and *tada*.
PACKARD, 5th Rept. U. S. Ent. Comm., 797, figs., quotes Comstock.
TOWNSEND, Proc. Ent. Soc. Wash., II, 389, notes on relation to *Retinia comstockiana*, a twig-borer of *P. inops*.
PACKARD, Rept. U. S. Geol. Surv. of the Terr., X, 1876, 527 (*Diplosis pini-rigidæ*); 5th Rept. U. S. Ent. Comm., 798-800, fig.; larvæ make galls in needles of *P. rigida*. [Syn. taken from Kertész, Catalogue.]
MIK, Wien. Ent. Zeit., XVI, 290-292 (id.).
ECKEL, Ent. News, XIV, 279-284, pl., habits, etc. (*Diplosis*).
- robiniaë** HALDEMAN, Amer. Jour. Agr. and Sci., VI, 193, figs.; reprinted in Proc. Boston Soc. Nat. Hist., VI, 401.
HARRIS, Ins. Inj. to Veget., 3d edit., 567.
FITCH, 2d N. Y. Rept., 332.
On leaves of locust, *Robinia pseudacacia*, in Atlantic States.
- sorghicola** COQUILLET, Bull. 18, n. ser., 82 (*Diplosis*).—Ala., Tex.; larvæ in seeds of sorghum.
- togata** FITCH, Amer. Quart. Jour. Agr. and Sci., II, 233-264, 1845.
- thoracica** FITCH, Essay on the Wheat-fly, f. 5, 6.—N. Y.
OSTEN SACKEN, Cat., 5, note on genus.

thurstoni BRODIE, Biol. Rev. of Ontario, I, 1894, 73-75.—Toronto; gall in stem of *Helianthus divaricata*.

CLINODIPLOSIS.

KIEFFER, Feuille jeune Natural., XXIV, 121, 1894.

rosivora COQUILLETT, Bull. 22, n. ser., Div. of Ent., 46 (*Diplosis*).—East. U. S.; infests buds of roses grown under glass.

LESTODIPLOSIS.

KIEFFER, Bull. Soc. Ent. France, LXIII, 28, 1894; Feuille jeun. Natural., XXIV, 84, 1894 (the latter as *Coprodiplosis*).

caliptera FITCH, Essay on the Wheat-fly (first edition in Amer. Quart. Jour. Agric. and Sci., II, No. 2, 1845, pl. v, f. 2; second edit. in Trans. N. Y. State Agl. Soc., 1846, vol. v. Mentioned as *Cecidomyia* in both. *Cercalis* is separated in the second only.) Also in 3d N. Y. Rept., 90, pl. II, f. 18 (id.).—N. Y.; affects wheat like *tritici*.

decemmaculata WALSH, Proc. Ent. Soc. Phil., III, 631 (*Diplosis*).—Rock Id., Ill.; inquilinous in galls of *strobiloides*.

septemmaculata WALSH, Proc. Ent. Soc. Phil., III, 630; VI, 228 (both *Diplosis*).—Rock Id., Ill.; inquilinous in galls of *brassicoides*, bred from black knot on plum, and "from the coccidian gall *vitifoliae* Fitch."

? SAY, Long's Exped., App., 357 (*ornata*); Compl. Works, I, 242 (id.).—Pa. [Walsh, with a doubt.]

? WIEDEMANN, Auss. Zw., I, 22 (id.).

ASYNAPTA.

LOEW, Dipt. Beitr., IV, 39, 1850.

OSTEN SACKEN, Mon. N. A. Dipt., I, 177, 1862.

RÜBSAAMEN, Berl. Ent. Zeitsch., XXXVII, 400, 1892.

KIEFFER, Annales Soc. Ent. France, 1900, 446.

antennariæ WHEELER, Proc. Wis. Nat. Hist. Soc., Apr., 1889, 212-216, all stages and habits; galls in terminal buds of *Antennaria plantaginifolia*; courtship mentioned.—Wis.

CECIDOMYIDÆ OF WHICH THE ADULT IS UNDESCRIBED.

These have all been referred to as belonging to the genus *Cecidomyia*, except as noted.

agrostis OSTEN SACKEN, Mon. N. A. Dipt., I, 204.—N. Y.

FITCH, The Hessian Fly, 2d edit., 38, original mention as "imbricated gall on *Agrostis laterifolia*."

balsamicola LINTNER, 4th N. Y. Rept., 60-63, figs.—N. Y.; larvæ make swellings in base of leaves of balsam fir, *Abies balsamea*.

LINTNER, 7th N. Y. Rept., 307, oc. in *Abies fraseri* in N. C.

coryloides WALSH, Proc. Ent. Soc. Phil., III, 588; VI, 224 (*salicis-coryloides*).—Rock Id., Ill., on *Salix discolor*.

BERGENSTAMM und LOEW, Synopsis Cecid., 71, quoted by O. S., Cat., 215.

coryloides WALSH, Proc. Ent. Soc. Phil., III, 588; VI, 224 (*vitis-coryloides*).—Ill.; galls on wild grapes—*Vitis cordifolia* and *riparia*.

WALSH and RILEY, Amer. Ent., I, 107, fig. of gall.

RILEY, 5th Mo. Rept., 116, same fig. and note.

PACKARD, Guide to Study of Ins., 376, fig.

- bedeguar** WALSH, *Canad. Ent.*, I, 79; *Proc. Ent. Soc. Phil.*, VI, 266 (*cratagi-bedeguar*).—Ill.; on *Cratægus tomentosa*, the thorn-apple.
- brachyteroides** OSTEN SACKEN, *Mon. N. A. Dipt.*, I, 198.—D. C.; on *Pinus inops*.
- brassicoides** TOWNSEND, *Psyche*, 1893, 490 (*bigeloviae-brassicoides*).—N. M., on *Bigelovia graveolens*.
- carbonifera** OSTEN SACKEN, *Mon. N. A. Dipt.*, I, 195.—D. C., on leaves of *Solidago*. N. J.—Smith Cat.
- caryæcola** OSTEN SACKEN, *Mon. N. A. Dipt.*, I, 192.—D. C., on *Carya*. N. J.—Smith Cat.
- citrina** OSTEN SACKEN, *Trans. Amer. Ent. Soc.*, III, 53.—N. Y., on *Tilia americana*.
- clavula** BEUTENMÜLLER, *Bull. Amer. Mus. Nat. Hist.*, IV, 1892, 269, pl. xv, f. 5.—N. Y., on *Cornus* sp. N. J.—Smith Cat.
- TOWNSEND, *Proc. Ent. Soc. Wash.*, II, 390, gall.—Va.
- culmicola** MORRIS (Miss), *Proc. Acad. Nat. Sci. Phil.*, IV, 194.—Pa.; in wheat stalks.
- HARRIS, *Ins. Inj. to Veget.*, 582.
- cynipsea** OSTEN SACKEN, *Mon. N. A. Dipt.*, I, 193.—D. C., on *Carya*.
- deserta** PATTON, *Canad. Ent.*, XXIX, 247 (*Cecidomyia-celtis deserta*).—Conn.
- erigerontis** BRODIE, *Biol. Rev. of Ont.*, I, 1894, 13-15 (*Diplosis*—gen. ref. taken from adult).—Toronto, Can.; on *Erigeron canadense*.
- erubescens** OSTEN SACKEN, *Mon. N. A. Dipt.*, I, 193.—D. C.; on *Quercus*.
- farinosa** OSTEN SACKEN, *Mon. N. A. Dipt.*, I, 204.—D. C.; on leaves of blackberry, *Rubus*.
- BRODIE, *Biol. Rev. of Ont.*, I, 1894, 110, oc. at Toronto (*Diplosis*). N. J.—Smith Cat. (*Lasioptera*).
- glutinosa** OSTEN SACKEN, *Mon. N. A. Dipt.*, I, 193.—D. C.; on *Carya*.
- hageni**, n. sp.: I apply this term to the gall described, but not named, by Hagen, *Canad. Ent.*, 1881, 37, on *Aristolochia siphon*.
- helianthi** BRODIE, *Biol. Rev. of Ont.*, I, 1894, 44-46.—Toronto, Can.; in axils of leaves of *Helianthus decapetalus* and *divaricatus*.
- holotricha** OSTEN SACKEN, *Mon. N. A. Dipt.*, I, 193; *Cat.*, 216, note.—D. C., on *Carya*. N. J.—Smith Cat.
- hordoides** WALSH, *Proc. Ent. Soc. Phil.*, III, 599 (*salicis-hordoides*).—Rock Id., Ill.; on *Salix humilis*.
- impatientis** OSTEN SACKEN, *Mon. N. A. Dipt.*, I, 204; *Amer. Ent.*, II, 63, fig. of gall.—D. C.; deforms flowers of *Impatiens*. N. J.—Smith Cat.
- inopis** OSTEN SACKEN, *Mon. N. A. Dipt.*, I, 196 (*pini-inopis*).—D. C.; forms a resinous cocoon on *Pinus virginiana* (*inopis*). N. J.—Smith Cat. (*Diplosis*).
- liriodendri** OSTEN SACKEN, *Mon. N. A. Dipt.*, I, 204.—D. C.; on leaves of *Liriodendron*.
- HAGEN, *Canad. Ent.*, XVIII, 159, note on pædogenesis. N. J.—Smith Cat.
- monardæ** BRODIE, *Biol. Rev. of Ont.*, I, 1894, 109-111 (*Diplosis monardi*, or perhaps a *Lasioptera*).—Toronto, Canada; gall on *Monarda fistulosa*.
- majalis** OSTEN SACKEN, *Trans. Amer. Ent. Soc.*, III, 53 (*quercus-majalis*); *Mon. N. A. Dipt.*, I, 204 (id.).—D. C.
- PACKARD, 5th Rept. U. S. Ent. Comm., 207 (id.), gall and larva; on pin-oak, *Quercus palustris*.
- niveipila** OSTEN SACKEN, *Mon. N. A. Dipt.*, I, 199, gall.—D. C.; on oak of several species. N. J.—Smith Cat.

- nodulus** WALSH, Proc. Ent. Soc. Phil., III, 599 (*salicis-nodulus*).—Rock Id., III.; gall on *Salix longifolia*.
- nucicola** OSTEN SACKEN, Trans. Amer. Ent. Soc., III, 53.—N. Y.; in the husks of nuts of *Hicoria*.
- ocellaris** OSTEN SACKEN, Mon. N. A. Dipt., I, 199.—D. C.; larva in depression on under side of leaf of *Acer rubrum*.
Note.—Constock, Rept. Dept. Agric., 1881-2, 202, pl. xvii, describes the adult as a *Sciara*. But Mik, in Verh. Zool.-bot. Ges., 1883, 190-192, considers this an error of rearing, the *Sciara* coming from the earth in the breeding cage. The same view is held by Brauer, Zweifl. d. Kaiserl. Mus., III, 46, and by Osten Sacken, 2d edit. of his Characters of Larvæ of Mycetophilidæ, Heidelberg, 1886, postscript, p. 27.
 N. J.—Smith Cat.; Mich.—J. M. A.
- pelleus** OSTEN SACKEN, Mon. N. A. Dipt., I, 199.—D. C.; galls on leaves of *Fraxinifera americana*. N. J.—Smith Cat.
- persicoides** OSTEN SACKEN, Mon. N. A. Dipt., I, 193; Cat., 216, note.—D. C.; on *Hicoria*. N. J.—Smith Cat.
- poculum** OSTEN SACKEN, Mon. N. A. Dipt., I, 201; Cat., 216, note (probably inquilinous in the gall of a Cynipid of *Quercus*).—D. C.
 FITCH, 2d N. Y. Rept., No. 40, "Oak Spangles."
 N. J.—Smith Cat.
- pomum** WALSH and RILEY, Amer. Ent., I, 106, f. 85, gall (*vitis-pomum*).—Ill.; on *Vitis cordifolia*.
 RILEY, 5th Mo. Rept., 114-116, figs. and notes.
 N. J.—Smith Cat.
- pudibunda** OSTEN SACKEN, Mon. N. A. Dipt., I, 202.—D. C.; on leaves of *Carpinus caroliniana*.
- racemicola** OSTEN SACKEN, Mon. N. A. Dipt., I, 196.—D. C.; larvæ among racemes of *Solidago*.
- rigidæ** OSTEN SACKEN, Mon. N. A. Dipt., I, 189, gall desc. and name changed.
 FITCH, Amer. Quart. Jour. Agric. and Sci., I, 263 (*salicis*, preoc.).—N. Y.; makes a swelling at the tip of twig of *Salix rigida* and *lucida*.
 WALSH, Proc. Ent. Soc. Phil., III, 595, abstr. of Fitch.
 N. J.—Smith Cat.
- salicifoliæ** OSTEN SACKEN, Proc. Ent. Soc. Phil., VI, 220.—Canada; on *Spiræa salicifolia*.
- salicum** COCKERELL—the gall so mentioned is that of a sawfly of the genus *Pontania*, with "little or no doubt";—Ckll. *in litt*.
- sanguinolenta** OSTEN SACKEN, Mon. N. A. Dipt., I, 192.—D. C.; on *Hicoria*.
 N. J.—Smith Cat.
- serotinæ** OSTEN SACKEN, Trans. Amer. Ent. Soc., III, 346.—N. Y.; on *Prunus serotina*. N. J.—Smith Cat.
- symmetrica** OSTEN SACKEN, Mon. N. A. Dipt., I, 200.—D. C.; on *Quercus*.
- triticoideus** WALSH, Proc. Ent. Soc. Phil., III, 598; VI, 225 (*salicis-triticoideus*).—Rock Id., III.; on *Salix cordata*.
- tubicola** OSTEN SACKEN, Mon. N. A. Dipt., I, 192; Cat., 216, note.—D. C.; on *Hicoria*.
 N. J.—Smith Cat.
- tulipiferæ** OSTEN SACKEN, Mon. N. A. Dipt., I, 202.—D. C.; on *Liriodendron*.
 N. J.—Smith Cat.
- umbellicola** OSTEN SACKEN, Trans. Amer. Ent. Soc., III, 52 and 347.—N. Y.; N. J.; on *Sambucus racemosa*, among the umbels.

- urnicola** OSTEN SACKEN, *Canad. Ent.*, Nov., 1875.—Trenton Falls, N. J.; on *Urtica gracilis*.
- verruca** WALSH, *Proc. Ent. Soc. Phil.*, III, 606 (*salicis-verruca*); VI, 226.—Rock Id., Ill.; on leaf of *Salix humilis* and *discolor*.
- verrucicola** OSTEN SACKEN, *Canad. Ent.*, Nov., 1875.—New England; on *Tilia americana*. N. J.—Smith Cat.
- viticola** OSTEN SACKEN, *Mon. N. A. Dipt.*, I, 202.—D. C.; on *Vitis*.
RILEY, *Amer. Ent.*, II, 28 and 113, fig. (both as *vitis-lituus*).
N. J.—Smith Cat.

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- LOEW, *Berl. Ent. Zeit.*, II, 101, pl. I, f. 1-15, 1858 (*Spodius*).
- brevifrons** WALKER, *List*, I, 81.—Martin Falls, Canada.
White Mts., N. H., and Rocky Mts., Col.—O. S. Cat.
- COQUILLETT, *Proc. Wash. Acad. Sci.*, II, 290, oc. on Popoff Id., Alaska.

PLECIA.

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- LOEW, *Berl. Ent. Zeit.*, II, 101.
- bicolor** BELLARDI, see *collaris*.
- collaris** FABRICIUS, *Syst. Antl.*, 54 (*Hirtca*).—S. A.
WIEDEMANN, *Dipt. Exot.*, 32; *Auss. Zw.*, I, 74.—S. A.
SCHINER, *Novara*, 21.—S. A.
BELLARDI, *Saggio*, I, 16 (*bicolor*).—Mex.
OSTEN SACKEN, *Biologia, Dipt.*, I, 3 (*bicolor*).—Presidio, Mex.
WILLISTON, *Biologia, Dipt.*, Suppl., 222, syn. and oc. at Teapa, Mex.
- heros** SAY, *Jour. Acad. Sci. Phil.*, VI, 154; *Compl. Works*, II, 352 (*Penthtria*).—Mex.
- ✓ **heteroptera** SAY, *Jour. Acad. Nat. Sci. Phil.*, III, 77; *Compl. Works*, II, 69 (*Bibio*).
Md.
WIEDEMANN, *Auss. Zw.*, I, 80 (id.).
? MACQUART, *Hist. Nat. Dipt.*, I, 175 (*Penthtria atra*); *Dipt. Exot.*, I, 1, 85, pl. XII, f. 3 (*Enpeitennus ater*, n. gen.).—Philadelphia. [Osten Sacken; I use a question mark on account of the very different figure accompanying the second desc.]
LOEW, *Berl. Ent. Zeitsch.*, II, 109.
- VAN DER WULP, *Tijdschr. v. Ent.*, XII, 81, ref. to Macq.
Montreal, Quebec, N. H., Mich., New Orleans. S. D.—J. M. A.
- heteroptera** MACQUART, see *plagiata*.
- nigerrima** BELLARDI, *Saggio*, I, 14.—Mex.
WILLISTON, *Biologia, Dipt.*, Suppl., 221, oc. in Mex., several places.
- plagiata** WIEDEMANN, *Analecta Ent.*, II; *Auss. Zw.*, I, 175.—Brazil.
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SCHINER, *Novara*, 22.—Colombia; notes and syn. preceding.
OSTEN SACKEN, *Biologia, Dipt.*, I, 2; oc. in Vera Cruz and Tabasco, Mex.
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BELLARDI, *Saggio*, I, 15 (*rostrata*) [Schiner].—Mex.
SCHINER, *Novara*, 21, notes.

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 WIEDEMANN, Dipt. Exot., 1, 31; Auss. Zw., 1, 72.—S. A.
 MACQUART, Hist. Nat. Dipt., 1, pl. IV, f. 17 [O. S.].
 BELLARDI, Saggio, 1, 15.—Mex.
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 Florida—Johnson.
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vittata BELLARDI, see *plagiata*.

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 N. J.—Smith Cat.; Montreal—Chagnon; Axton, N. Y.—M. and H.; Michigan, S. D., Idaho.—J. M. A.
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basalis LOEW, Cent., v, 11.—N. H.
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- femoratus* WIEDEMANN, Dipt. Exot., 35; Auss. Zw., 1, 79.—N. A.
 MACQUART, Dipt. Exot., 1, 1, 87 (*fuscipennis*).—N. A. [Loew.]
 TOWNSEND, Ins. Life, II, 43, oc. in Mich. in numbers.
 Atl. States (O. S.); N. J. (Smith Cat.); White Mts., N. H. (Slosson);
 Axton, N. Y. (M. and H.).
- fraternus* LOEW, Cent., v, 8.—D. C.
 NEEDHAM, Amer. Nat., XXXVI, 181, oc. at Lake Forest, Ill. Larvæ at base
 of rotting stumps. Figs. larva and pupa.
- fuliginosus* BELLARDI, Saggio, 1, 19.—Mex.
- fumidus* COQUILLETT, Dipt. of Commander Ids., 343.—Copper Island, Alaska.
- fumipennis* WALKER, List, 1, 122.—Martin's Falls, Canada.
- gracilis* WALKER, List, 1, 123.—Nova Scotia.
 Quebec (Wulp); Montreal (Chagnon); White Mts., N. H. (Slosson).
- hirtus* LOEW, Cent., v, 2.—Cal.
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- humeralis* WALKER, List, 1, 121.—Nova Scotia.
- inequalis* LOEW, Cent., v, 3.—Sitka.
- longipes* LOEW, Cent., v, 12.—D. C.
 N. J. (Smith Cat.); Montreal (Chagnon).
- lucens* LOEW, Cent., v, 6.—Winnipeg.
- nervosus* LOEW, Cent., v, 4.—Cal.
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- pallipes* SAY, Jour. Acad. Sci. Phil., III, 76; Compl. Works, II, 68.—Pa.
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 Ohio (Webster; N. J. (Smith Cat.); Montreal (Chagnon); White Mts.,
 N. H. (Slosson).
- piceus* BELLARDI, Saggio, 1, 17.—Mex.
- rufithorax* WIEDEMANN, Auss. Zw., 1, 78.—Pa.
 St. Augustine Fla.—Johnson; "The thorax of the male is black."
- scitus* WALKER, List, 1, 122.—Nova Scotia.
- senilis* VAN DER WULP, Tijdschr. v. Ent., XII, 81.—Wis.
- striatipes* WALKER, List, 1, 122.—Nova Scotia.
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 N. J.—Smith Cat.; Axton, N. Y.—M. and H.
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 no damage.

DILOPHUS.

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breviceps LOEW, Cent., IX, 59.—N. H. N. J.—Smith Cat.
dimidiatus LOEW, Cent., VIII, 3.—N. Y. N. J.—Smith Cat.
fulvicoxa WALKER, List, I, 117.—Martin Falls, Canada.
longiceps LOEW, Cent., I, 14.—Ill.
maculatus BELLARDI, Saggio, I, 19, pl. I, f. 5.—Mex.
melanarius VAN DER WULP, Tijdschr. v. Ent., XXIV, 146.—Mex.
 OSTEN SACKEN, Biologia, Dipt., I, 4, note.
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minutus BELLARDI, Saggio, App., 7.—Mex.
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obesulus LOEW, Cent., IX, 60.—D. C.
orbatus SAY, Jour. Acad. Sci. Phil., III, 77; Compl. Works, II, 69 (*Bibio*).—Pa.
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 Fla.; several places—Johnson.
serotinus LOEW, Cent., I, 15.—Ill.
serraticollis WALKER, List, I, 117.—Martin Falls, Canada.
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 Beulah, N. M.—Skinner.
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thoracicus SAY, Jour. Acad. Sci. Phil., III, 80; Compl. Works, II, 71.—Pa. and
 Md.
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 Occurs also in S. America—Wulp.
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atrata SAY, Long's Exped., App., 367; Compl. Works, I, 250.—Philadelphia.
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 N. J.—Smith Cat.
brevicornis MEIGEN, Syst. Besch., VI, 314.—Europe.
 SCHINER, Fauna Austr., II, 351.
 White Mts., N. H.—Slosson.
nitens WALKER, List, I, 114.—Martin Falls, Canada.
 OSTEN SACKEN, Cat., says is unrecognizable.
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 FABRICIUS, Ent. Syst., IV, 250 (*Tipula albipennis*); Suppl., 353 (refers to *Hirtea*); Syst. Anth., 55 (*albipennis*).
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 LUNDBECK, Dipt. Grœnlandica, oc. in Greenland.
 COQUILLETT, Proc. Wash. Acad. Sci., II, 394, oc. in Alaska and Greenland, to Alabama. N. J.—Smith Cat.
obscura WALKER, List, I, 114.—Martin Falls, Canada.
 Unrecognizable. [O. S.].
pulicaria LOEW, Linnæa Ent., I, 338, pl. III, f. 10.—Europe.
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pygmæa LOEW, Cent., V, 13.—D. C.
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SIMULIIDÆ.

SIMULIUM.

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- KELLOGG, Psyche, Feb., 1901, 166, says larvæ live largely on diatoms.
- argus** WILLISTON, Dipt. of Death Valley Exped., 253.—Argus Mts., Cal.
- COQUILLETT, Proc. Wash. Acad. Sci., II, 394, regards as a synonym of *vittatus*. JOHANNSEN, *in litt.*, does not.
- WILLISTON, Biologia, Dipt., I, 223, oc. in Guerrero, Mex.
- bracteatum** COQUILLETT, Bull. 10, n. ser., Div. Ent., 69.—Mass., Cal.
- cinereum** BELLARDI, Saggio, I, 13.—Mex.
- TOWNSEND, Proc. Cal. Acad. Sci., IV, 593, note on oc. in Lower Cal. (Mex.).
- decorum** WALKER, List, I, 112.—Martin Falls, Canada.
- COQUILLETT, Bull. 10, n. ser., Div. Ent., makes this a synonym of *vittatum* ZETTERSTEDT; but the description seems to contradict this.
- fulvum** COQUILLETT, Proc. U. S. N. M., XXV, 96. Mentioned in the following as *ochraceum* WALKER:
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- BAKER, Ent. News, VIII, 172, oc. in Col., and notes.
- glaucum** COQUILLETT, Proc. U. S. N. M., XXV, 97.—Kansas City, Mo.
- griseum** COQUILLETT, Bull. 10, n. ser., Div. Ent., 69.—Col.
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- ZETTERSTEDT, Dipt. Scand., IX, 3426.
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- JOHANNSEN, Ent. News, XIV, 14, oc. in N. Y.
- Idaho—JOHANNSEN *in litt.*
- invenustum** WALKER, List, I, 112.—Martin Falls, Canada. See also *pecuarum*.
- irritatum** LUGGER, 2d Rept. Ent. Minn., 1896, 177, f. 145, 146, no description.—Minn.
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MARLATT, *Ins. Life*, III, 7; breeding on raft of logs in bayou in La.

White Mts., N. H.—Slosson; Axton, N. Y.—M. & H.

metallicum BELLARDI, *Saggio*, I, 14.—Mex.

mexicanum BELLARDI, *Saggio*, App., 6.—Mex.

minutum LUGGER, 2d Rept. Ent. Minn., 1896, 175, f. 143, no desc.—Minn.

molestum HARRIS, see *venustum*.

occidentale TOWNSEND, see *venustum*.

ochraceum WALKER, *Trans. Ent. Soc.*, n. ser., v, 332.—Mex. See also references under *fulvum*.

✓ *pecuarum* RILEY, Rept. Dept. Agriculture, 1886, 512, pl. VI, VII, VIII. The Southern Buffalo Gnat. Full biology. Occurs in La., Miss., Ark., Tenn., Mo., Ky., Ill., Ind., Kans.; attacks mules, horses, cattle, sheep, setting hens and turkeys, hogs, dogs and cats, killing many of these animals.

COQUILLETT, *Bull.* 10, n. ser., Div. Ent., 68, fig.—N. H., N. Y., Mass., Conn., D. C., Mich.

HERRICK, *Bull.* 53, Miss. Agl. Expt. Station, brief notes.

N. J.—Smith Cat.; White Mts., N. H.—Slosson; Alaska—Coquillett.

Note.—Coquillett regards this species as the same as *invenustum* WALKER. Johannsen in *litt.* does not.

pictipes HAGEN, *Proc. Boston Soc. Nat. Hist.*, xx, 305.

COQUILLETT, *Bull.* 10, n. ser., Div. Ent., 69.—N. Y., Texas, Cal.

MISS R. O. PHILLIPS, thesis at Cornell Univ., abstract by Howard in *Bull.* 10, n. ser., Div. Ent., 66, 67, life history.

quadrivittatum LOEW, *Cent.*, II, 2.—Cuba.

reptans LINNÉ, *Fauna Suec.*, No. 1893, p. 465 (*Culex*).—Sweden.

DEGEER, *Hist. Nat. Ins.*, VI, 161 (*Tipula erythrocephala*).

SCHINER, *Fauna Austr.*, II, 365, fuller bibliography.

LUNDBECK, *Dipt. Grœnl.*, I, 238, oc. in Greenland.

tamaulipense TOWNSEND, *Jour. N. Y. Ent. Soc.*, v, 171.—Tamaulipas, Mex.

tarsale WILLISTON, *Trans. Ent. Soc. Lond.*, 1896, 268, pl. VIII, f. 25.—St. Vincent, W. I.

HUNTER, *Trans. Amer. Ent. Soc.*, xxvi, 297, would make this a synonym of *pulchrum* PHILIPPI (*Aufzählung d. Chilen. Dipt.*, 633), from Chili.

tribulatum LUGGER, 2d Rept. Ent. Minn., 1896, 178-181, figs. 146-151; life hist.; no description.—Minn.

venustum SAY, *Jour. Acad. Sci. Phil.*, III, 28; *Compl. Works*, II, 51.—Shippingsport, Ohio River.

WIEDEMANN, *Auss. Zw.*, I, 71.

HARRIS, *Ins. Inj. Vegetation*, 3d ed., 601 (*molestum*).—Mass. [Coq.]

RILEY, *Amer. Ent.*, II, 367 (*piscicidium*) [Coq.]

COQUILLETT, *Bull.* 10, n. ser., Div. Ent., 68.—Can., N. H., N. Y., Mich., Minn., Wyo., Br. Col., Tex., La., Miss., Fla.

Axton, N. Y.—M. & H.

virgatum COQUILLETT, *Proc. U. S. N. M.*, xxv, 97.—Las Vegas Hot Springs, N. M.

vittatum ZETTERSTEDT, *Ins. Lapp.*, 803; *Dipt. Scand.*, IX, 3423.—Europe.

STAEGER, *Grœnl. Antl.*, oc. in Greenland.

HOLMGREN, *Ins. Nordgr.*, 104, same.

O. FABRICIUS, *Fauna Grœnl.*, 211, same (*Culex reptans* LINN.).

STAEGER and SCHÖDTE, *Berl. Ent. Zeit.*, 1859, 112.

COQUILLETT, *Bull.* 10 n. ser., Div. Ent., 69.—N. Y., Minn., Nebr., Kans., Col.

LUNDBECK, Dipt. Grœnl., 238, oc. in Greenland.

AXTON, N. Y.—M. & H.

See also *Simulium argus* WILL.

BLEPHAROCERIDÆ.

LOEW, Boll. Soc. Ent. Ital., 1, 85, 1869, monograph; Revis. der Blepharoceriden, Schles. Zeit. f. Ent., Neue Folge, VI, 54-90, 1 pl., 1877.

OSTEN SACKEN, Bemerkungen über Blepharoceriden, Deutsche Ent., 1878, 405-416, an appendix to Loew's revision; Synopsis of the Blepharoceridæ, Berl. Ent. Zeitsch., XXXVI, 1891, 407-411; Contributions to the Study of the Liponeuridæ, Berl. Ent. Zeitsch., XL, 1895, 148-169; suppl. to same, l. c., 351, where the old family name is used (he had already published a note in Ent. Mo. Mag., May, 1895, restoring the name).

JOHANNSEN, Bull. 68, N. Y. State Mus., 332, 1903.

TOWNSEND, Trans. Amer. Ent. Soc., XIX, 155, table of N. A. genera.

KELLOGG, Proc. Cal. Acad. Sci., 3d ser., III, 187-224, 5 pl., 1903, an elegant family revision for the species of the United States, with description and figures of early stages of six species (two undescribed, being unknown in the adult).

PALTOSTOMA.

SCHINER, Verh. Zool.-Bot. Ges., 1866, 931.

OSTEN SACKEN, Cat., 1878, note 19; Berl. Ent. Zeitsch., 1891, 410.

schineri WILLISTON, Trans. Ent. Soc. Lond., 1896, 269, pl. VIII, f. 27.—St. Vincent, W. I.

? *superbiens* SCHINER, Novara, 28, pl. II, f. 4.—S. A.

OSTEN SACKEN, Biologia, Dipt., 1, 5, doubtful oc. in Mexico.

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OSTEN SACKEN, Geol. Surv. of the Territories, 1873; Berl. Ent. Zeitsch., 1891, 409.

LOEW, Revision, 95, 1877.

ROEDER, Wien. Ent. Zeit., IX, 230, 1890 (*Agathon*, in part). [Kellogg.]

KELLOGG, Proc. Cal. Acad. Sci., 3d ser., III, 199, 200, table of species, etc.

comstocki KELLOGG, Proc. Cal. Acad. Sci., 3d ser., III, 192, figs. all stages.—Near Stanford University, Cal.

doanei KELLOGG, Psyche, April, 1900, 39 (*Liponeura*); Proc. Cal. Acad. Sci., 3d ser., III, 194, figs. all stages; Amer. Nat., 1902, 704-706, homology of mouth-parts, with figs.—Near Stanford University, Cal.

elegantula ROEDER, Wien. Ent. Zeit., IX, 230, 1890 (*Agathon*).—Nevada.

KELLOGG, Proc. Cal. Acad. Sci., 3d ser., III, 193, figs. all stages.—Col.

Northern Idaho—J. M. A.

grandis OSTEN SACKEN, Geol. Surv. of the Territories, 1873, 564.—Col.

LOEW, Revision, 95, transl. orig. desc.

BLEPHAROCERA.

MACQUART, Annales Soc. Ent. France, II, 1, 61, 1843 (*Blepharicera*).

WESTWOOD, Guérin's Magasin Zool., Ins., pl. 94, 1842 (*Asthenia*, preoc.).

SCHINER, Fauna Austr., II, 637, 1864.

OLDENBERG, Zeitsch. f. Hym. und Dipterol., 1901, would add *Liponeura* as a synonym.

KELLOGG, Proc. Cal. Acad. Sci., 3d ser., III, 199-200, 1903, table of species, etc.

- JOHANNSEN, Bull. 68, N. Y. State Mus., 333, 1903.
americana WALKER, List, I, 28 (*Asthenia*).—Martin Falls, Canada.
 OSTEN SACKEN, Cat., 217, note 18, says is unrecognizable, and does not belong to this family, and the type cannot be found.
jordani KELLOGG, Proc. Cal. Acad. Sci., 3d ser., III, 189, figs. all stages.—Stanford University, Cal., and vicinity.
osten-sackeni KELLOGG, Proc. Cal. Acad. Sci., 3d ser., III, 191, figs. all stages.—California, several places.
tenuipes WALKER, List, I, 86 (*Asyndulum*).—Martin Falls, Canada.
 LOEW, Cent., IV, 43 (*capitata*).—D. C. [O. S., from Walker's type.]
 KELLOGG, Ent. News, XI, 305, figs., on structure and habits (id.); larval stages.—Ithaca, N. Y.
 JOHANNSEN, Bull. 68, N. Y. State Mus., 333, life hist.—Axton and Ithaca, N. Y.
 Wh. Mts., N. H.—O. S. Cat.; Axton, N. Y.—M. & H.

PHILORUS.

- KELLOGG, Proc. Cal. Acad. Sci., 3d ser., III, 199, 1903.
ancilla OSTEN SACKEN, Cat., 1878, 266 (*Blepharocera*).—Cal.
yosemite OSTEN SACKEN, West. Dipt., 195 (*Blepharocera*).—Yosemite Valley, Cal.
 KELLOGG, Psyche, 1903, 186, oc. and note.—Grand Canon of King's Riv., Cal.

RHYPHIDÆ.

- TOWNSEND, Trans. Amer. Ent. Soc., XIX, 155, 1892, table of N. A. genera.
 OSTEN SACKEN, Berl. Ent. Zeitsch., XXXVII, 456, 1892, discussion of adult and larval characters.

RHYPHUS.

- LATREILLE, Hist. Nat. Crust. et Ins., XIV, 291, 1804.
 MEIGEN, Syst. Besch., I, 320, 1818.
 SCHINER, Fauna Austr., I, 494, 1864.
alternatus SAY, Jour. Acad. Sci. Phil., III, 27; Compl. Works, II, 51.—Pa.
 WIEDEMANN, Auss. Zw., I, 82.
 N. J.—Smith Cat.; White Mts., N. H.—Slosson; Axton, N. Y.—M. & H.
dolorosus WILLISTON, Dipt. St. Vincent, 298, pl. x, f. 74.—St. Vincent, W. I.
fenestralis SCOPOLI, Ent. Carn., 322 (*Tipula*).—Europe.
 MEIGEN, Syst. Besch., I, 323.
 ZETTERSTEDT, Dipt. Scand., IX, 3436.
 SCHINER, Fauna Austr., II, 495.
 LOEW, Silliman's Jour., oc. in N. A.
 VAN DER WULP, Dipt. Neerl., 438; Tijdschr. v. Ent., XXIV, 153, oc. at Quebec.
 OSTEN SACKEN, Berl. Ent. Zeitsch., XXXVII, 457, 1892, notes on larva.
 White Mts., N. H.—Slosson.
punctatus FABRICIUS, Mant. Ins., II, 333 (*Rhagio*); Ent. Syst., IV, 274 (id.); Syst. Antl., 59 (*Sciara*).—Europe.
 MEIGEN, Syst. Besch., I, 322.
 ZETTERSTEDT, Dipt. Scand., IX, 3434.
 SCHINER, Fauna Austr., II, 495.
 SAY, Jour. Acad. Sci. Phil., III, 27; Compl. Works, II, 50 (*marginatus*).—Pa. [Loew, Silliman's Jour.]
 WIEDEMANN, Auss. Zw., I, 82 (*marginatus*).

VAN DER WULP, Dipt. Neerl., 438; Tijdschr. v. Ent., xxiv, 153, oc. at Quebec.

HOWARD, Canad. Ent., xxxiii, 43, oc. in Va.; bred from cowdung.

N. J.—Smith Cat.; White Mts.—Slosson.

scalaris WIEDEMANN, Auss. Zw., ii, 618.—Ga.

OLBIOGASTER.

OSTEN SACKEN, Biologia, Dipt., i, 20, 1886.

cognatus OSTEN SACKEN, loc. cit., 21.—Irazu, Costa Rica.

tæniatus BELLARDI, Saggio, App., 5, f. 15 (*Rhyphus*).—Mex.

TOWNSEND, Annals and Mag. Nat. Hist., xx, 21.—Vera Cruz.

ORPHNEPHILIDÆ.

ORPHNEPHILA.

HALIDAY, Zool. Jour., v, 350, pl. xv, f. 1—9, 1831.

RUTHE, Isis, 1831 (*Thaumaba*).

MACQUART, Hist. Nat. Dipt., i, 152, 1834, pl. iv, f. 3, 4, 5 (*Chenesia*).

SCHINER, Fauna Austr., ii, 643, 1864.

OSTEN SACKEN, Berl. Ent. Zeitsch., xxxvii, 458, 1892.

testacea RUTHE, Isis, 1211, 1831.—Europe.

HALIDAY, Zool. Jour., v, pl. xv, f. 2; Ent. Mag., i, 156 (*devia*).

MACQUART, Hist. Nat. Dipt., i, 152 (*Chenesia*).

ZETTERSTEDT, Ins. Lapp., 868; Dipt. Scand., ix, 3452 (*Chenesia obscura*).

SCHINER, Fauna Austr., ii, 643.

LOEW, Mon. N. A. Dipt., i, 6, oc. in New York.

N. Y.—Johannsen *in litt*.

STRATIOMYIDÆ.

BERIS.

LATREILLE, Hist. Nat. Crust. et Ins., iii, 447, 1802; xiv, 340, 1804.

MEIGEN, Syst. Besch., ii, 1, 1820.

SCHINER, Fauna Austr., i, 23, 1862.

LOEW, Stett. Ent. Zeit., 1846, 219.

RONDANI, Archivio per la Zool., 1863, 87 (*Oplacantha*).

GIGLIO-TOS, Ditt. del Mess., i, 5, 1892, syn. of *Oplacantha*.

annulifera BIGOT, Annales, 1887, 21 (*Oplacantha*).—Ga.

COQUILLET, Proc. Wash. Acad. Sci., ii, 406, oc. in Alaska, N. H., and Col.

limbata BIGOT, Annales, 1879, 196 (*Oplacantha*).—Mex.

GIGLIO-TOS, Ditt. del Mess., i, 6, pl. i, f. 1.—Orizaba, Mex.

mexicana BELLARDI, Saggio, i, 20, pl. i, f. 6.—Mex.

? WILLISTON, Canad. Ent., 1885, 123, oc. in Col., with a doubt.

WILLISTON, Trans. Amer. Ent. Soc., xv, 245 (*bellula*).—Rio Janeiro.

GIGLIO-TOS, Ditt. del Mess., i, 5, syn., etc.—Orizaba.

morrisii DALE, Annals and Mag. Nat. Hist., 1842.—England.

LOEW, Stett. Ent. Zeit., 1846, 284 (*pallipes*). [Schiner.]

SCHINER, Fauna Austr., i, 24.

VAN DER WULP, Tijdschr. v. Ent., xxiv, 153, oc. in N. A.—Quebec.

viridis see *Actina*.

HETERACANTHIA.

MACQUART, Dipt. Exot., Suppl., iv, 43, 1851.

BRAUER, Zweifl. d. Kaiserl. Mus., 16, 1882.

mexicana GIGLIO-TOS, Boll. R. Univ. Torino, vi, 102, 1891; Ditt. del Mess., 1, 8.—Mex.

ALLOGNOSTA.

OSTEN SACKEN, Berl. Ent. Zeitsch., 1883, 297. Loew had erroneously referred the species to *Metoponia* MCQ., which is not a synonym.

fuscitarsis SAY, Jour. Acad. Sci. Phil., iii, 29; vi, 155; Compl. Works, ii, 52 and 353 (all *Beris*).—Pa. and Ind.

SAY, Long's Exped., App., 377; Compl. Works, i, 257 (*Sargus dorsalis*).—Ky.

WIEDEMANN, Auss. Zw., i, 540 (*Beris dorsalis*); ii, 41 (*Sargus pallipes*).—Pa.

WALKER, List, i, 127 (*Beris lata* and *brevis*).—Trenton Falls, N. Y.

OSTEN SACKEN, Cat., 43, syn.

Atlantic States and Canada—O. S.; N. J.—Smith Cat.; Montreal—Chagnon.

obscuriventris LOEW, Cent., iv, 45 (*Metoponia*).—D. C. Conn.—O. S. Cat.

LOEW, Besch. Europ. Dipt., iii, 72, mentions the possible occurrence of this species in Siberia.

N. J.—Smith Cat.; Montreal—Chagnon; White Mts., N. H.—Slosson.

similis LOEW, Cent., iv, 44 (*Metoponia*).—N. Y.

ACTINA.

MEIGEN, Klassifikation, 117, 1804.

SCHINER, Fauna Austr., i, 25, 1862.

BRAUER, Zweifl. d. Kaiserl. Mus., ii, 16, 1882.

✓ **viridis** SAY, Long's Exped., App., 368; Compl. Works, i, 251 (*Beris*).—Pa.

WIEDEMANN, Auss. Zw., i, 83 (id.).

Atlantic States and British Poss.—O. S.; N. J.—Smith Cat.; Montreal—Chagnon; Axton, N. Y.—M. & H.

Note.—The generic reference is by Mr. Kahl.

NEOEXAIRETA.

OSTEN SACKEN, Cat., 1878, 44, change of name.

SCHINER, Verh. Zool.-Bot. Ges., 1867, 309; Novara, 71, 1869 (*Exaireta*, preoc.)

MACQUART, Dipt. Exot., i, 1, 172, 1838 (*Diphysa*, in part).

NOWICKI, Beitr. zur Kenntniss d. Dipterenfauna Neuseelands, 1875, 12.

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rufipalpis WIEDEMANN, Auss. Zw., ii, 619 (*Xylophagus*).—Mex.

MACQUART, Dipt. Exot., i, 1, 172 (*Diphysa*).—Mex.

BERISMYIA.

GIGLIO-TOS, Bull. Mus. Zool., Univ. Torino, vi, 108, p. 2, 1891; Ditt. del Mess., i, 6, 1892.

fusca GIGLIO-TOS, Ditt. del Mess., i, 7, pl. 1, f. 2.—Mex.

nigrofemorata WILLISTON, Biologia, Dipt., i, 230, pl. iv, f. 7.—Guerrero, Mex.

SCOLIOPELTA.

WILLISTON, Entom. Americana, i, 119, 1885.

luteipes WILLISTON, op. cit., 119.—N. H.

CAMPEPROSOPA.

MACQUART, Dipt. Exot., Suppl., iii, 46, 1850.

WILLISTON, Ent. News, vii, 185, reports from N. A.; Biologia, Dipt., i, 239, 1900.

longicornis WILLISTON, op. cit., 239, pl. iv, f. 11.—Guerrero, Mex.

HERMETIA.

LATREILLE, Dict. d'Hist. Nat., xxiv, 1804; Hist. Nat. Crust. et Ins., xiv, 338, 1804.

MACQUART, Hist. Nat. Dipt., i, 228, 1834.

BRAUER, Zweifl. d. Kaiserl. Mus., ii, 10, 1882.

OSTEN SACKEN, Biologia, Dipt., i, 27, 1886, partial table of species.

æneipennis WILLISTON, Biologia, Dipt., i, 241.—Yucatan.

GIGLIO-TOS, Ditt. del Mess., i, 11 (var. of *flavipes*).—Mex.

albitarsis FABRICIUS, Syst. Antl., 63.—S. A.

WIEDEMANN, Auss. Zw., ii, 24, pl. vii, f. 4.—S. A.

MACQUART, Hist. Nat. Dipt., i, 228 (*bimaculata*); 229 (*sexmaculata*); Dipt. Exot., Suppl., i, 50 (*p'anifrons*).—Brazil; Porto Rico; Yucatan; Colombia. [Syn. by Will., with a doubt as to *bimaculata* and *sexmaculata*.]

WILLISTON, Trans. Amer. Ent. Soc., xv, 246, oc. in Brazil; Biologia, Dipt., i, 240.—Teapa, Mex.

aurata BELLARDI, Saggio, 27, fig.—Mex., Morelia.

OSTEN SACKEN, Biologia, Dipt., i, 28.—Texas; N. Sonora, Mex.

TOWNSEND, Proc. Cal. Acad. Sci., iv, 594.—Lower Cal.

WILLISTON, Biologia, Dipt., i, 240, notes.

ceria WILLISTON, Biologia, Dipt., i, 242, pl. iv, f. 13.—Durango, Mex.

chrysopila LOEW, Cent., x, 11.—Texas.

WILLISTON, Canad. Ent., 1885, 125, syn. of *aurata*; oc. in N. M.; Biologia, Dipt., i, 240, may be distinct.

OSTEN SACKEN, Biologia, Dipt., i, 28, syn. of *aurata*.

coarctata MACQUART, Dipt. Exot., Suppl., i, 50, fig.—Mex.

BELLARDI, Saggio, i, 24.—Mex.

SCHINER, Novara, 70.—S. A.

OSTEN SACKEN, Biologia, Dipt., i, 32.—Merida, Yucatan.

comstocki WILLISTON, Canad. Ent., 1885, 125.—Ariz.

OSTEN SACKEN, Biologia, Dipt., i, 28, pl. i, f. 3.—N. Sonora, Mex.

concinna WILLISTON, Canad. Ent., 1885, 125 (*lativentris* BELLARDI, an erroneous identification); Biologia, Dipt., i, 241.—N. M.; Arizona.

crabro OSTEN SACKEN, Biologia, Dipt., i, 29, pl. i, f. 4.—Guatemala.

eiseni TOWNSEND, Proc. Cal. Acad. Sci., iv, 594.—Lower Cal.

flavipes WIEDEMANN, Auss. Zw., ii, 26.—Brazil.

WALKER, List, iii, 515 (*Sargus andreas*); v, 21, syn. of *andreas*.—Para.

GIGLIO-TOS, Ditt. del Mess., i, 11 (var. *æneipennis*).

See *æneipennis* WILL.

flavoscutata BIGOT, Annales, 1879, 201.—Mex.

formica OSTEN SACKEN, Biologia, Dipt., i, 32.—Panama.

illucens LINNÉ, Syst. Naturæ, 12th ed., ii, 979 (*Musca illucens* and *leucopa*).—S. A.

DEGEER, Mém. pour serv. Hist. Ins., vi, 205, pl. xxix, f. 8 (*Nemotelus*).

- FAERICIUS, Mantissa Ins., II, 327 (*Bibio*); Ent. Syst., IV, 253 (*Mydas*); Syst. Antl., 62.—West Indies.
- LATREILLE, Dict. d'Hist. Nat., XXIV, 194; Hist. Nat. Crust. et Ins., XIV, 338; Gen. Crust. et Ins., IV, 271.
- LAMARCK, Hist. Anim. sans Vert., III, 355 (*Xylophagus*).
- GUÉRIN et PERCHERON, Gén. des Insectes, Dipt., pl. IV.
- WIEDEMANN, AUSS. ZW., II, 22, pl. VII, f. 3.
- MACQUART, Hist. Nat. Dipt., I, 228; Dipt. Exot., I, 1, 177, pl. XXI, f. 2.
- BIGOT, in Sagra's Cuba, 799.
- BELLARDI, Saggio, I, 26.—Mex.
- RILEY and HOWARD, Insect Life, I, 353, habits—larvæ live in beehives, on wax, etc., in Alabama. (Mentioned as *H. mucens*.)
- BIGOT, Annales, 1879, 200 (*nigrifacies*).—Mex.
- OSTEN SACKEN, Biologia, Dipt., I, 32, oc. in Mexico, Guatemala, Costa Rica, and Panama.
- JOHNSON, Ent. News, IX, 56, oc. at Philadelphia.
- MORGAN, Bull. 48, N. Ser., La. Ex. Station,—larvæ supposed to be of this species in alimentary canal of man; figs., larva and adult. Also bred from potatoes.
- WILLISTON, Biologia, Dipt., I, 240, syn. and notes.
- Porto Rico—Roeder and Coquillett; Jamaica—Johnson.
- lativentris* BELLARDI, Saggio, I, 27, pl. I, f. 9; App., 8.—Mex.
- ? WILLISTON, Canad. Ent., XVII, 125, doubtfully recognized from N. M.
- WILLISTON, Biologia, Dipt., I, 241, notes; the N. M. species is different.
- Oc. in Mexico, several places.
- mucens*, see *illucens*.
- nigrifacies* BIGOT, see *illucens*.
- planifrons* MACQUART, see *albitarsis*.
- pterochausta* OSTEN SACKEN, Biologia, Dipt., I, 33, pl. I, f. 5.—Panama.
- relicta* OSTEN SACKEN, Biologia, Dipt., I, 30.—Panama.
- sexmaculata* MACQUART, see *albitarsis*.

ANALCOCERUS.

- LOEW, Verh. Zool.-Bot. Ges., 1855, 10.
- BRAUER, Zweifl. d. Kaiserl. Mus., II, 12, 1882.
- hortulanus* WILLISTON, Biologia, Dipt., I, 238, pl. IV, f. 10.—Yucatan.

ACROCHÆTA.

- WIEDEMANN, AUSS. ZW., II, 42, 1830.
- BRAUER, Zweifl. d. Kaiserl. Mus., II, 12, 1882.
- GIGLIO-TOS, Ditt. del Mess., I, 17, 1892.
- fasciata* WIEDEMANN, AUSS. ZW., II, 42.—Brazil.
- MACQUART, Hist. Nat. Dipt., I, 260.—Brazil.
- WALKER, List, v, 68.—Brazil.
- LOEW, Verh. Zool.-Bot. Ver., v, 1855, 131.
- GIGLIO-TOS, Ditt. del Mess., I, 16.—Orizaba, Mex.
- WILLISTON, Biologia, Dipt., I, 232, oc. in Orizaba and Teapa, Mex.

RHAPHIOCERA.

- MACQUART, Hist. Nat. Dipt., I, 253, 1834.
- BRAUER, Zweifl. d. Kaiserl. Mus., II, 14, 1882.
- caloptera* OSTEN SACKEN, Biologia, Dipt., I, 26.—Paso del Macho, Mex.

HISTIODROMA.

SCHINER, Novara, 68, 1868.

BRAUER, Zweifl. d. Kaiserl. Mus., II, 14, 1882.

flaveola BIGOT, Annales, 1879, 205.—Mex.

PTECTICUS.

LOEW, Verh. Zool.-Bot. Ges., v, 142, 1855.

BRAUER, Zweifl. d. Kaiserl. Mus., II, 14, 1882.

concinus WILLISTON, Biologia, Dipt., I, 238.—Guerrero, Mex.

cyanifrons RONDANI, Esame di var. sp., etc., 43 (*Sargus*).—Brazil.

GIGLIO-TOS, Ditt. del Mess., I, 118 (as a var. of *testaceus*).—Mex.

WILLISTON, Biologia, Dipt., I, 237.—Mex., several places.

figlinus OSTEN SACKEN, Biologia, Dipt., I, 24.—Guatemala.

WILLISTON, Biologia, Dipt., I, 236.—Guerrero and Jalisco, Mex.

flaviceps BIGOT, Annales, 1879, 230.—Mex.

GIGLIO-TOS, Ditt. del Mess., I, 23.—Mex.

maculatus WILLISTON, Biologia, Dipt., I, 238.—Yucatan.

? **nitidipennis** LOEW, Verh. Zool.-Bot. Ges., 1855, 13.—Venezuela.

? WILLISTON, Biologia, Dipt., I, 237, doubtful oc. in Guerrero, Mex.

sackeni WILLISTON, Canad. Ent., XVII, 124.—Fla.

OSTEN SACKEN, Cat., 45 (*testaceus* Fabricius). [Will.]

LYNCH, A., Catalogos, etc., 125, oc. in S. A.

WILLISTON, Biologia, Dipt., I, 237.—Guerrero, Mex.

Fla.—Johnson; N. J.—Smith Cat.

similis WILLISTON, see *trivittatus*.

testaceus FABRICIUS, Syst. Antl., 257 (*Sargus*).—S. A.

WIEDEMANN, Auss. Zw., II, 35 (id.).—Brazil.

MACQUART, Dipt. Exot., I, 1, 203 and Suppl. I, 57 (id.).—Brazil and Guiana;
Merida, Yucatan.

BELLARDI, Saggio, I, 45 (id.).—Mex.

RONDANI, Esame di . . . Ins. Ditt. Brasil., 1848, 43 and 75.

LOEW, Verh. Zool.-Bot. Ver., v, 147 (*Ptecticus*).

SCHINER, Novara, 64.

VAN DER WULP, Tijdschr. v. Ent., XXIV, 1881, 156.

GIGLIO-TOS, Ditt. del Mess., I, 22, places *cyanifrons* as a variety.—Mex.

WILLISTON, Biologia, Dipt., I, 236, oc. in Mexico generally.

West. N. Y.—O. S. Cat.; N. J.—Smith Cat.

trivittatus SAY, Jour. Acad. Sci. Phil., VI, 159; Compl. Works, II, 355 (*Sargus*).

—Ind.

WILLISTON, Canad. Ent., 1885, 124 (*similis*).—Va., Ga. [Kahl]

N. J.—Smith Cat.

trivittatus GIGLIO-TOS, Boll. R. Univ. Torino, VI, No. 102, 1891; Ditt. del Mess.,
I, 24, pl. I, f. 8.—Mex.

MEROSARGUS.

LOEW, Verh. Zool.-Bot. Ver., 1855, 144.

BRAUER, Zweifl. d. Kaiserl. Mus., II, 15, 1882.

bulbifrons WILLISTON, Biologia, Dipt., I, 235, pl. IV, f. 8, 8a.—Guerrero, Mex.

calceolatus BIGOT, Annales, 1879, 229.—Mex.

cingulatus SCHINER, Novara, 62.—S. A.

? FABRICIUS, Syst. Antl., 253 (*Scava staminea*).—S. A. [G.-T., with ?]

WIEDEMANN, Auss. Zw., II, 39 (*Sargus stamineus*).—S. A. [Will.]

- WALKER, List, v, 92 (*Sargus stamineus* F.).—S. A.
 GIGLIO-TOS, Ditt. del Mess., i, 18, syn.—Orizaba, Mex.
 WILLISTON, Biologia, Dipt., i, 234 (*stamineus* Wd.).—Mexico, sev. places.
concinatus WILLISTON, Biologia, Dipt., i, 235, pl. iv, f. 9.—Guerrero, Mex.
coriaceus GIGLIO-TOS, Boll. R. Univ. Torino, vi, No. 102, 1891; Ditt. del Mess., i, 21.—Orizaba, Mex.
dissimilis GIGLIO-TOS, Boll. R. Univ. Torino, vi, No. 102, 1891; Ditt. del Mess., i, 20, pl. i, f. 7.—Orizaba, Mex.
fraternus BIGOT, Annales, 1879, 228.—Mex.
hyalopectus GIGLIO-TOS, Boll. R. Univ. Torino, vi, No. 102, 1891; Ditt. del Mess., i, 19.—Orizaba, Mex.
orizabæ GIGLIO-TOS, Boll. R. Univ. Torino, vi, No. 102, 1891; Ditt. del Mess., i, 20.—Orizaba, Mex.
spatulatus WILLISTON, Biologia, Dipt., i, 235.—Guerrero, Mex.
stamineus FABRICIUS, see *cingulatus*.
subinterruptus BELLARDI, Saggio, i, 44, pl. i, f. 22 (*Sargus*).—Mex.
 WALKER, Trans. Ent. Soc., v, 271 (id.).—Mex.
 GIGLIO-TOS, Ditt. del Mess., i, 19.—Mex.

CHRYSOCHROMA.

- WILLISTON, Manual N. A. Dipt., 47, 1896, change of name.
 LOEW, Verh. Zool.-Bot. Ver., 1855, 146 (*Chrysonotus*, preoc.).
 BRAUER, Zweifl. d. Kaiserl. Mus., ii, 15, 1882 (id.).
 WILLISTON, Biologia, Dipt., i, 233, 1900, notes.
æneiventris GIGLIO-TOS, Ditt. del Mess., i, 25 (*Chrysonotus*).—Orizaba, Mex.
albipes TOWNSEND, published by Adams, Kans. Univ. Sci. Bull., ii, 31.—Guito, Mex.
anale WILLISTON, Trans. Amer. Ent. Soc., xv, 251 (*Chrysonotus*).—Brazil.
 GIGLIO-TOS, Ditt. del Mess., i, 24 (id.).—Mex.
flavopilosum BIGOT, Annales, 1879, 227 (*Chrysonotus*).—Mex.
 WILLISTON, Biologia, Dipt., i, 233, oc. in Mexico, several places.
nigricornis LOEW, Cent., vii, 14 (*Chrysonotus*).—D. C.
 West. N. Y.—O. S.
latifrons WILLISTON, Biologia, Dipt., i, 234.—Guerrero, Mex.
pulchrum WILLISTON, Biologia, Dipt., i, 233.—Guerrero, Mex.

SARGUS.

- FABRICIUS, Ent. Syst., Suppl., 566, 1798.
 MEIGEN, Syst. Besch., iii, 104, 1822.
 MACQUART, Hist. Nat. Dipt., i, 260, 1834.
 SCHINER, Fauna Austr., i, 20, 1862.
 BRAUER, Zweifl. d. Kaiserl. Mus., ii, 15, 1882.
 Note.—Probably some of the following species do not belong to *Sargus* in the narrow sense.
alchidas WALKER, see *Macrosargus*.
aureus BELLARDI, Saggio, i, 42, pl. i, f. 20.—Mex.
bagosas WALKER, List, iii, 518.—Jamaica.
bicolor WIEDEMANN, Auss. Zw., ii, 41.—Porto Rico.
cæruleifrons JOHNSON, Ent. News, xi, 325.—Delaware Water Gap, N. J.
cæsius BELLARDI, Saggio, i, 40, pl. i, f. 18.—Mex.
 GIGLIO-TOS, Ditt. del Mess., i, 28 (*filiformis*).—Mex. [Will.]
 WILLISTON, Biologia, Dipt., i, 232.—Guerrero, Mex.

? **clavatus** WALKER, List, v, 93.—Brazil.

BELLARDI, Saggio, I, 41, doubtful oc. in Mexico.—Morelia.

coarctatus MACQUART, Dipt. Exot., I, 1, 202, pl. XXV, f. 2.—Brazil and Guiana.

WALKER, List, v, 92.—Brazil or Chili.

WILLISTON, Trans. Amer. Ent. Soc., xv, 249.—Brazil.

GIGLIO-TOS, Ditt. del Mess., I, 26.—Mex.

WILLISTON, Biologia, Dipt., I, 231, oc. in Amula in Teapa, Mex.; is probably the same as *S. notatus* WIED., Auss. Zw., II, 34, from Brazil.

concinus OSTEN SACKEN, Biologia, Dipt., I, 23.—Guatemala and Brazil.

cuprarius LINNÉ, Fauna Suecica, 1853 (*Musca*).—Europe.

DEGEER, Mém. pour Serv. Hist. Ins., VI, 81, pl. XII, f. 4 (*Nemotelus*).

SCOPOLI, Entom. Carniolica, 340 (*Musca violacea*).

MEIGEN, Syst. Besch., III, 106 and 107 (the latter *caruleicollis*).

WALKER, Ins. Brit., I, 30, pl. I, f. 9.

SCHINER, Fauna Austr., I, 21.

Smith Cat., oc. in New Jersey.

Montreal—Chagnon (*cuprinus*, a mistake).

debilis WALKER, Dipt. Saund., 83.—U. S.

decorus SAY, Long's Exped., App., 376; Compl. Works, I, 257.—Pa. and E. Fla.
WIEDEMANN, Auss. Zw., II, 38 and 40 (the latter *xanthopus*, given by Will. as a doubtful syn.).

VAN DER WULP, Tijdschr. v. Ent., x, 134 (*marginatus*).—Wis. [Lw.]

Eastern North America, common. Benlah, N. M.—Skinner.

elegans LOEW, Cent., VII, 10.—Fla., Mass., N. Y. Ky.—O. S.

filiformis GIGLIO-TOS, see *casius*.

lateralis MACQUART, Macquart. Hist. Nat. Dipt., I, 262.—Cuba.

BIGOT, in Sagra's Cuba, 800.

latus BELLARDI, Saggio, 41, pl. I, f. 19.—Mex.

linearis WALKER, List, v, 328.—Mex.

lucens LOEW, Cent., VII, 11.—Cuba.

GIGLIO-TOS, Ditt. del Mess., I, 27.—Orizaba, Mex.

WILLISTON, Biologia, Dipt., I, 231, notes on G. T.'s species, which is said to be different from *lucens*.

nigribarbis BIGOT, see *viridis*.

nigrifemoratus MACQUART, see *Merosargus*.

nubeculosus ZETTERSTEDT, Dipt. Scand., I, 157.—Europe.

SCHINER, Fauna Austr., I, 21.

JOHNSON, Ent. News, VII, 94, oc. in Pa.

pallipes BIGOT, Annales, 1887, 28.—Mt. Hood, Ore.

WILLISTON, Biologia, Dipt., III, 23, says is preoccupied twice.

picticornis BIGOT, Annales, 1887, 27.—Wash.

pleuriticus LOEW, Cent., VII, 13.—Cuba.

punctifer BIGOT, Annales, 1887, 27.—Col.

sallei BELLARDI, Saggio, I, 43, pl. I, f. 21.—Mex.

sapphireus BIGOT, Annales, 1887, 28.—Cuba.

speciosus MACQUART, Dipt. Exot., Suppl., I, 56.—Merida, Yucatan.

BELLARDI, Saggio, I, 40.—Jalapa and Merida, Mex.

splendens BIGOT, Annales, 1879, 224.—Mex.

stamineus FABRICIUS, see *Merosargus cingulatus*.

subinterruptus BELLARDI, see *Merosargus*.

tricolor LOEW, Cent., VII, 12.—Cuba.

St. Augustine and Tick Id., Fla.—Johnson.

trivittatus SAY, see *Pteticus*.

versicolor BELLARDI, Saggio, App., 13, f. 8.—Oaxaca, Mex.

viridis SAY, Jour. Acad. Sci. Phil., III, 87; Compl. Works, II, 77.—Cincinnati; Atlantic States.

WIEDEMANN, Auss. Zw., II, 39.

OSTEN SACKEN, Cat., 45 (*Chloromyia*).

BIGOT, Annales, 1879, 224 (*nigribarbis*).—Cal. [Will.]

WILLISTON, Canad. Ent., XVII, 123, note on genus.

N. J.—Smith Cat.; Montreal—Chagnon; Beulah, N. M.—Skinner.

xanthopus WIEDEMANN, see *decorus*.

MYIOCHRYSA.

RONDANI, Dipt. Ital. Prod., IV, 11, 1861, change of name.

MACQUART, Hist. Nat. Dipt., I, 262, 1834 (*Chrysomyia*, preoc.).

BRAUER, Zweifl. d. Kaiserl. Mus., II, 15, 1882.

cærulea BIGOT, Annales, 1887, 29.—N. A.

MICROCHRYSA.

LOEW, Verh. Zool.-Bot. Ver., V, 131, 1855.

BRAUER, Zweifl. d. Kaiserl. Mus., II, 15, 1882.

nova GIGLIO-TOS, Boll. R. Univ. Torino, VI, No. 102, 1891; Ditt. del Mess., I, 16.—Mex.

polita LINNÉ, Fauna Suecica, 1854 (*Musca*).—Europe.

FABRICIUS, Syst. Antl., 257 (*Sargus*).

MEIGEN, Syst. Besch., III, 111 (*Sargus*).

MACQUART, Dist. Nat. Dipt., I, 263 (*Chrysomyia*).

SCHINER, Fauna Austr., I, 22 (id.).

LOEW, Verh. Zool.-Bot. Ver., V, 135.

VAN DER WULP, Diptera Neerlandica, I, 163 (*Chrysomyia*); Tijdschr. v. Ent., XXIV, 156, oc. at Quebec.

N. J.—Smith Cat.; Montreal—Chagnon.

MACROSARGUS.

BIGOT, Annales, 1879, 187, 225.

BRAUER, Zw. d. Kaiserl. Mus., II, 15, 1882, probably is same as *Merosargus* Lw.

alchidas WALKER, List, III, 17 (*Sargus*).—Jamaica.

JOHNSON, Proc. Acad. Nat. Sci. Phil., 1894, 271.—Jamaica.

clavis WILLISTON, Canad. Ent., XVII, 123.—Va., N. C.

smaragdiferus BIGOT, Annales, 1879, 226.—Mex.

CHRYSOCHLORA.

LATREILLE, Familles Nat. du Règne Animal, 1825.

MACQUART, Dipt. Exot., I, 1, 198, 1838.

LOEW, Verh. Zool.-Bot. Ver., V, 1855.

BRAUER, Zweifl. d. Kaiserl. Mus., II, 9, 1882.

WILLISTON, Biologia, Dipt., I, 242, 1900.

pulchra WILLISTON, Biologia, Dipt., I, 242.—Tabasco, Mex.

purpurea WALKER, Trans. Ent. Soc., V, 271.—Mex.

quadri-lineata BIGOT, Annales, 1887, 26.—Cuba.

CHORDONOTA.

GERSTÆCKER, Linnaea Ent., XI, 311, 1857.

BRAUER, Zweifl. d. Kaiserl. Mus., II, 12, 1882.

- carbonaria** BELLARDI, Saggio, App., II.—Mex., Tuxpango and Orizaba.
fuscipennis BELLARDI, Saggio, App., II, f. 6.—Playa Vincente, Mex.
leiophthalma WILLISTON, Dipt. St. Vincent, 302.—St. Vincent, W. I.

CYPHOMYIA.

- WIEDEMANN, Zool. Mag., I, 3, 55, 1819; Analecta Ent., 1824.
 MACQUART, Hist. Nat. Dipt., I, 241, 1834.
 GERSTÄCKER, Linnæa Ent., XI, 263, 1857.
 BRAUER, Zweifl. d. Kaiserl. Mus., II, 12, 1882.
albitarsis FABRICIUS, Syst. Antl., 80 (*Stratiomys*).—S A.
 MACQUART, Dipt. Exot., Suppl., I, 48 (*fenestrata*).—Yucatan. [Gerst.]
 GERSTÄCKER, Linnæa Ent., XI, 300.
 BELLARDI, Saggio, I, 22.—Mex.
 OSTEN SACKEN, Biologia, Dipt., I, 35.—Costa Rica, Panama.
 GIGLIO-TOS, Ditt. del Mess., I, 9.
 WILLISTON, Biologia, Dipt., I, 243, oc. in Mexico, several places.
androgyna OSTEN SACKEN, Biologia, Dipt., I, 34.—Panama.
auriflamma WIEDEMANN, Zool. Mag., I, 3, 54; Auss. Zw., II, 54, pl. VIII, f. 1.—Brazil.
 MACQUART, Hist. Nat. Dipt., I, 242 (*cyanca* and *auriflamma*).—Cayenne; Brazil. [Gerst.]
 GUÉRIN, Iconographie du Règne Animal, pl. xcviII, f. 5.
 PERTY, Delectus Animalium Articulorum, 184, pl. xxxvi, f. 14 (*Chrysodota*). [Gerst.]
 GERSTÄCKER, Linnæa Ent., XI, 276.
bicarinata WILLISTON, Biologia, Dipt., I, 244.—Guerrero, Morelos, Jalisco and Vera Cruz,—all in Mex.
lasiophthalma WILLISTON, Dipt. St. Vincent, 301, 1896.—St. Vincent, W. I.
lasiophthalma WILLISTON, Biologia, Dipt., I, 244, pl. IV, f. 15; 1900.—Jalisco and Guerrero, Mex.
marginata LOEW, Cent., VI, 31.—Cuba.
ochracea GIGLIO-TOS, Boll. R. Univ. Torino, VI, no. 102, 1891; Ditt. del Mess., I, 10, pl. I, f. 4.—Mex.
pilosissima GERSTÄCKER, Linnæa Ent., XI, 292.—Mex.
 WILLISTON, Biologia, Dipt., I, 244.—Mexico City and Morelos, Mex.
rubra LOEW, Cent., VI, 30.—Cuba.
similis BELLARDI, Saggio, I, 23, pl. I, f. 7.—Mex.
scalaris BIGOT, Annales, 1875, 487.—Mex.
 GIGLIO-TOS, Ditt. del Mess., I, 9, pl. I, f. 3.—Orizaba.
simplex WALKER, Trans. Ent. Soc., V, 268.—Mex.
tomentosa GERSTÄCKER, Linnæa Ent., XI, 294.—Mex.
 BELLARDI, Saggio, I, 22.—Mex.
varipes GERSTÄCKER, Linnæa Ent., XI, 283.—Mexico.
 SCHINER, Novara, 52, oc. in Colombia, etc.
 OSTEN SACKEN, Biologia, Dipt., I, 34 oc. in Guatemala, Nicaragua and Panama.
 WILLISTON, Biologia, Dipt., I, 243, oc. in Vera Cruz.

NEORONDANIA.

- OSTEN SACKEN, Cat., 50, 1878, change of name.
 JÄNNICKE, Neue Exot. Dipteren, 1867, 324 (*Rondania*, preoc.).
 BRAUER, Zweifl. d. Kaiserl. Mus., II, 12, 1882.



chalybea WIEDEMANN, *Analecta Ent.*, 30; *Auss. Zw.*, II, 49 (*clitellaria*).—St. Thomas.

JÆNNICKE, *Neue Exot. Dipteren*, 324, pl. XLIII, f. 4.—Mex.

obscura JÆNNICKE, *Neue Exot. Dipteren*, 325 (*Rondania*).—Mex.

STRATIOMYIA.

GEOFFROY, *Hist. Nat. d. Ins.*, II, 475, 1764 (*Stratiomys*).

FABRICIUS, *Syst. Antl.*, 77, 1805 (id.).

MEIGEN, *Syst. Besch.*, III, 132, 1822 (id.).

ZETTERSTEDT, *Dipt. Scand.*, I, 134, 1842 (id.).

GERSTÆCKER, *Linnaea Ent.*, XI, 317, 1857 (id.).

SCHINER, *Fauna Austr.*, I, 14, 1862 (id.).

LOEW, *Cent.*, VI, 4, 1865, amended as above.

BRAUER, *Zweifl. d. Kaiserl. Mus.*, II, 13, 1882 (*Stratiomys*).

JOHNSON, *Trans. Amer. Ent. Soc.*, XXII, 227, 1895, larval habits, table of species, etc.

PACKARD, *Amer. Nat.*, XVI, 1882, 599, 600, larva of undet. sp. in hot spring, at 157 degrees.

RILEY, *Amer. Nat.*, XVII, 1883, 1287, oc. of larva of undet. sp. in sea-water.

apicula LOEW, *Cent.*, VI, 13.—Ill.

JOHNSON, *Trans. Amer. Ent. Soc.*, XXII, 239, pl. III, f. 23, 24.—Ia., Ill., Kans., Nebr. Montreal—Chagnon; Ill.—Hart.

badia WALKER, *List*, III, 529 (*badius* and *ischiaca* HARRIS).—N. H.

Synonymy and correction of locality in *List*, IV, 1157.

LOEW, *Cent.*, VII, 21 (*picipes*).—English R., Canada. [O. S.]

JOHNSON, *Trans. Amer. Ent. Soc.*, XXII, 243, pl. III, f. 11, 12.—N. H., Mass.

NEDHAM, *Bull.* 47, N. Y. State Mus., 576, pl. XXXV, f. 1, desc. of larva supposed to belong here and figs. of adult.—Adirondacks, N. Y.

Montreal—Chagnon; White Mts., N. H.—Slosson.

barbata LOEW, *Cent.*, VI, 9.—Cal.

BIGOT, *Annales*, 1887, 23 (*diademata* and *calopus*).—Ga. and Col. [Johnson.]

JOHNSON, *Trans. Amer. Ent. Soc.*, XXII, 231, pl. III, f. 1.—Wash., Ore., Ida., Wyo., Col., Brit. Col. Montreal—Chagnon; Beulah, N. M.—Skinner.

bimaculata BELLARDI, *Saggio*, App., 10, f. 7.—Cosamaloapam, Mex.

JOHNSON, *Trans. Amer. Ent. Soc.*, XXII, 245, transl. orig. desc.

WILLISTON, *Biologia*, Dipt., I, 248, oc. in Yucatan, Mex.

bruneri JOHNSON, *Trans. Amer. Ent. Soc.*, XXII, 233, pl. III, f. 7, 8.—Custer, S. D., in the Black Hills.

calopus BIGOT, see *barbata*.

constans LOEW, *Cent.*, X, 8.—Texas.

JOHNSON, *Trans. Amer. Ent. Soc.*, XXII, 244, pl. IV, f. 1, 2.—Blanco Co., Tex.

constricta WALKER, *Trans. Ent. Soc.*, V, 268.—Mex.

JOHNSON, *Trans. Amer. Ent. Soc.*, XXII, 245, quotes orig. desc.

dentata BIGOT, see *maculosa*.

diademata BIGOT, see *barbata*.

discalis LOEW, *Cent.*, VI, 14.—Ill.

JOHNSON, *Trans. Amer. Ent. Soc.*, XXII, 240, pl. III, f. 27, 28.—Utah, Nebr., Minn., Ill., Mich., Pa., W. Va., Mass., Col.

N. J.—Smith Cat.; Utah—Hart; Montreal—Chagnon.

euchlora GERSTÆCKER, see *Odontomyia lefebvrei*.

fenestrata GERSTÄCKER, Linnæa Ent., XI, 327.—Mex.

gerstæckeri BELLARDI, Saggio, I, 31, pl. I, f. 10.—Mexico.

JOHNSON, Trans. Amer. Ent. Soc., XXII, 245, transl. orig. desc.

goniophora SAY, Jour. Acad. Sci. Phil., VI, 161; Compl. Works, II, 356.—Mex.

JOHNSON, Trans. Amer. Ent. Soc., XXII, 247, quotes orig. desc.

lacerata BIGOT, see *maculosa*.

laticeps LOEW, Cent., VII, 20.—Huds. Bay Terr.

? WALKER, List, III, 530 (*nymphis*).—Martin Falls, Canada. [O. S., with a ?]

JOHNSON, Trans. Amer. Ent. Soc., XXII, 234, pl. III, f. 9.—Mont., Utah, Nev., Cal., Ore., Wash., Col.

lativentris LOEW, Cent., VI, 8 and 11 (the latter as *obesa*).—Lake Superior; Ill. [Johnson.]

JOHNSON, Trans. Amer. Ent. Soc., XXII, 233, pl. III, f. 5, 6.—Ontario, N. Y., Pa., Mich., Ill., S. D.

Montreal—Chagnon; Province of Quebec—Fyles.

maculosa LOEW, Cent., VII, 19; X, 7 (the latter as *insignis*).—Cal.

BIGOT, Annales, 1879, 210 and 211 (*dentata* and *lacerata*).—Cal.

OSTEN SACKEN, West. Dipt., 213, part. syn.

JOHNSON, Trans. Amer. Ent. Soc., XXII, 241, syn. and desc.—Cal., Utah, N. Idaho—J. M. A.

meigenii WIEDEMANN, Auss. Zw., II, 61, pl. VIII, f. 7.—Savannah, Ga.

? MACQUART, Dipt. Exot., Suppl., IV, 48, pl. III, f. 5 (*lineolata*).—Va. [Johnson, with a doubt.]

LOEW, Cent., VI, 16 (*angularis*); 17 (*marginalis*).—Philadelphia. [Johnson.]

JOHNSON, Trans. Amer. Ent. Soc., XXII, 238, pl. III, f. 21, 22.—Pa., N. J., Nebr., Kans., Tex., Mich., Ill. Montreal—Chagnon.

melanostoma LOEW, Cent., VI, 10.—Cal.

JOHNSON, Trans. Amer. Ent. Soc., XXII, 232, pl. III, f. 3, 4.—Cal., Ore.

mutabilis FABRICIUS, Ent. Syst., IV, 266; Syst. Antl., 81 (in both cases as *mutabilis* and *fasciata*).—Cayenne, S. A.

WIEDEMANN, Auss. Zw., II, 63, pl. VIII, f. a-d.—Cayenne and Brazil.

PERTY, Delectus Animal., pl. XXXVIII, f. 14.

BELLARDI, Saggio, I, 30.—Cuantla, Mezquillan, Cuernavaca, in Mexico.

SCHINER, Novara, 61.

OSTEN SACKEN, Biologia, Dipt., I, 37.—Mexico, several places; Guatemala; Costa Rica.

JOHNSON, Trans. Amer. Ent. Soc., XXII, 243, pl. IV, f. 3.

WILLISTON, Biologia, Dipt., I, 248, oc. in Guerrero, Vera Cruz and Yucatan. See also *subalba*.

nevadæ BIGOT, Annales, 1887, 24.—Nev.

JOHNSON, Trans. Amer. Ent. Soc., XXII, 237, transl. orig. desc.; doubtfully recognized from Cal.

nigrifrons WALKER, List, III, 531.—Martin Falls, Canada.

JOHNSON, Trans. Amer. Ent. Soc., XXII, 247, quotes orig. desc.

norma WIEDEMANN, Auss. Zw., 62.—N. A.

JOHNSON, Trans. Amer. Ent. Soc., XXII, 236, pl. III, f. 17, 18.—Pa., Mich., Ind., Ill., Ia., Nebr.

HART, Bull. Ill. State Lab. Nat. Hist., IV, 249, full study of larva and pupa, with figs.

Montreal—Chagnon; N. J.—Smith Cat.

- normula** LOEW, Cent., VI, 4, 5 and 18 (*quadrigemina*, *normula* and *notata*).—Conn., N. Y., Nebr. [Johnson, who recognizes *quadrigemina* and *notata* as varieties.]
JOHNSON, Trans. Amer. Ent. Soc., XXII, 235, pl. III, f. 16.—Ontario, N. Y., Mich., Ill., S. D., Nebr.
Quebec—Wulp; Montreal—Chagnon.
- obesa** LOEW, see *lativentris*.
- pinguis** WALKER, Trans. Ent. Soc., v, 270.—Mex.
JOHNSON, Trans. Amer. Ent. Soc., XXII, 246, quotes orig. desc.
- quaternaria** LOEW, Cent., VI, 12.—Ill.
JOHNSON, Trans. Amer. Ent. Soc., XXII, 241, pl. III, f. 25, 26.—Pa., Mich., Ill., Conn.
- robusta** WALKER, List, v, 37.—N. A.
JOHNSON, Trans. Amer. Ent. Soc., XXII, 247, quotes orig. desc.
- senaria** LOEW, Cent., VI, 7.—Fla.
JOHNSON, Trans. Amer. Ent. Soc., XXII, 237.—St. Augustine, Fla.
- simplex** BIGOT, Annales, 1887, 24.—Tex., Col.
JOHNSON, Trans. Amer. Ent. Soc., XXII, 248, quotes orig. desc.
- subalba** WALKER, List, v, 43.—Para, S. A.
BELLARDI, Saggio, I, 231.—Tampico, Mex.
OSTEN SACKEN, Biologia, Dipt., I, 37.—Presidio, Mex.; Guatemala; Panama.
WILLISTON, Trans. Amer. Ent. Soc., XV, 256 (*mutabilis* Fabr., from S. A.); Biologia, Dipt., I, 248, notes and oc. in Vera Cruz, Mex., and Chapada, Brazil.
- trivittata** SAY, Jour. Acad. Sci. Phil., VI, 160; Compl. Works, II, 356, Mex.
- unilimbata** LOEW, Cent., VI, 6.—Wis.
JOHNSON, Trans. Amer. Ent. Soc., XXII, 236, pl. III, f. 19, 20.—Mont., Wis., S. D., Nebr., Wyo., Col., Ill.

ODONTOMYIA.

- MEIGEN, Klassifikation, 128, 1804.
MACQUART, Hist. Nat. Dipt., I, 245, 1834.
GERSTAECKER, Linnæa Ent., XI, 317, 1857 (sub *Stratiomys*).
SCHINER, Fauna Austr., I, 16, 1862.
BRAUER, Zweifl. d. Kaiserl. Mus., II, 13, 1882.
DAY, Proc. Acad. Nat. Sci. Phil., 1882, 74, partial table of species, etc.
JOHNSON, Trans. Amer. Ent. Soc., XXII, 248, complete revision, table of species, etc., 1895.
HART, Bull. Ill. State Lab. Nat. Hist., IV, 255, table of species.
- affinis** BELLARDI, Saggio, I, 35, pl. I, f. 12.—Puebla, Mex.
JOHNSON, Trans. Amer. Ent. Soc., XXII, 274, transl. orig. desc.
- albomaculata** MACQUART, Dipt. Exot., I, 1, 189.—Hayti.
WALKER, List, v, 40 (*Stratiomys*).—San Domingo.
JOHNSON, Trans. Amer. Ent. Soc., XXII, 276, transl. orig. desc.
- aldrichi** JOHNSON, Trans. Amer. Ent. Soc., XXII, 262, pl. IV, f. 17.—Riley Co., Kans.; Sand Hills and West Point, Nebr.
- americana** DAY, Proc. Acad. Nat. Sci. Phil., 1882, 77.—Cal.
JOHNSON, Trans. Amer. Ent. Soc., XXII, 261.—Wash.
- arcuata** LOEW, Cent., X, 4.—Cal.
DAY, Proc. Acad. Nat. Sci. Phil., 1882, 80, transl. orig. desc.
JOHNSON, Trans. Amer. Ent. Soc., XXII, 255, pl. III, f. 35 and IV, f. 7, 8.—Cal., Tex., Col., S. D., Nev.

binotata LOEW, see *truquii*.

? **caloceps** BIGOT, Annales, 1879, 217 (*Exochostoma*).—Col.

OSTEN SACKEN, Berl. Ent. Zeitsch., 1882, 369, gen. ref., with a doubt.

canadensis WALKER, List, v, 310.—Canada.

JOHNSON, Trans. Amer. Ent. Soc., xxii, 277, quotes orig. desc.

cincta OLIVIER, Encycl. Méthodique, viii, 432.—Carolina.

MACQUART, Dipt. Exot., i, 2, 189, type redesc.

DAY, Proc. Acad. Nat. Sci. Phil., 1882, 80 (*extremis*); 87, quotes orig. desc. of *cincta*.—Conn., Cal.

WILLISTON, Canad. Ent., xvii, 128, syn.

JOHNSON, Trans. Amer. Ent. Soc., xxii, 253.—Fla. to Conn., and west to S. D. and Kans.

HART, Bull. Ill. State Lab. Nat. Hist., iv, 256, egg, larva, pupa, with figs.; larvæ aquatic.

Montreal—Chagnon; White Mts., N. H.—Slosson.

? **comma** WILLISTON, Biologia, Dipt., i, 247.—Guerrero, Mexico; gen. ref. with a doubt.

concinata WILLISTON, Biologia, Dipt., i, 247.—Guerrero, Mexico.

dis similis BELLARDI, Saggio, i, 35, pl. i, f. 13, 14.—Mexico.

JOHNSON, Trans. Amer. Ent. Soc., xxii, 274, transl. orig. desc.

dorsalis FABRICIUS, Syst. Antl., 82 (*Stratiomys*).—West Indies.

WIEDEMANN, Auss. Zw., ii, 66 (id.).—S. A.

JOHNSON, Trans. Amer. Ent. Soc., xxii, 254, pl. iv, f. 9.—San Domingo.

COQUILLETT, Proc., U. S. N. M., xxii, 251, oc. in Porto Rico.

emarginata MACQUART, Dipt. Exot., i, 1, 190.—Mex.

WALKER, List, v, 40 (*Stratiomys*).—Mex.

JOHNSON, Trans. Amer. Ent. Soc., xxii, 275, transl. orig. desc.

fallax JOHNSON, Trans. Amer. Ent. Soc., xxii, 257.—S. Ga.

femorata BELLARDI, Saggio, i, 37.—Toluca, Mex.

JOHNSON, Trans. Amer. Ent. Soc., xxii, 275, trans. orig. desc.

flava DAY, Proc. Acad. Nat. Sci. Phil., 1882, 76.—Wyo.

WILLISTON, Canad. Ent., xvii, 128, type redesc.

JOHNSON, Trans. Amer. Ent. Soc., xxii, 256, quotes both desc.

flavicornis OLIVIER, Encycl. Méthodique, viii, 433.—N. A.

MACQUART, Hist. Nat. Dipt., i, 248, type redesc.; 245 (*Stratiomys flaviceps*, from Philadelphia); Dipt. Exot., i, 1, 180, pl. xxii, f. 2 (*Str. pulchella*, from Ga.); i, 1, 181 (*Str. vicina*, from Philadelphia).

GUÉRIN, Iconographie, Text, 544, pl. xcvi, f. 5 (*Str. coronata*).

LOEW, Cent., vi, 23 (*lasiophthalma*).—N. Y.

DAY, Proc. Acad. Nat. Sci. Phil., 1882, 81, transl. orig. desc.

JOHNSON, Trans. Amer. Ent. Soc., xxii, 269, pl. iv, f. 21, preceding syn., etc.—Pa., Ill., N. Y., N. J., N. C.

Fla.—Johnson.

flavifasciata MACQUART, Dipt. Exot., Suppl., iv, 53.—Mex.

JOHNSON, Trans. Amer. Ent. Soc., xxii, 275, transl. orig. desc.

fratella WILLISTON, Biologia, Dipt., i, 246.—Jalisco, Mex.

hieroglyphica OLIVIER, Encycl. Méthodique, viii, 434.—Carolina.

DAY, Proc. Acad. Nat. Sci. Phil., 1882, 87, quotes orig. desc.

JOHNSON, Trans. Amer. Ent. Soc., xxii, 267, pl. iv, f. 4, 5.—Mass., Va., D. C., Pa., N. J.

HART, Bull. Ill. State Lab. Nat. Hist., iv, 256 (*snowi*).—Champaign Co., Ill. [Johnson.]

hoodiana BIGOT, Annales, 1887, 25.—Mt. Hood, Ore.

JOHNSON, Trans. Amer. Ent. Soc., XXII, 266.—Cal., Brit. Col., Idaho.

hydroleonoides JOHNSON, Trans. Amer. Ent. Soc., XXII, 261, pl. iv, f. 10.—Toronto, Canada; Mich., Ill., Utah. Montreal—Chagnon.

inæqualis LOEW, Cent., VI, 24.—Huds. Bay Terr.,—Fort Resolution.

JOHNSON, Trans. Amer. Ent. Soc., XXII, 254, quotes orig. desc.

interrupta OLIVIER, Encycl. Méthodique, VIII, 433.—Carolina.

WIEDEMANN, Auss. Zw., II, 64 (*intermedia*).—N. A. [Johnson.]

WALKER, List, v, 38 (*Stratiomys intermedia* Wied.).—N. A.

DAY, Proc. Acad. Nat. Sci. Phil., 1882, 88, 85, quotes Olivier and Wiedemann.

JOHNSON, Trans. Amer. Ent. Soc., XXII, 265, pl. iv, f. 29, 30.—Pa., Mass.,

N. H., N. Y., Ill., Nebr., Minn., S. D. Montreal—Chagnon.

lefebvrei MACQUART, Dipt. Exot., I, 1, 189.—Mex.

BELLARDI, Saggio, I, 33.—Orizaba and Toluca, Mex.

WALKER, List, v, 40, 311 (*Stratiomys*).—Mex.

GERSTAECKER, Linnæa Ent., XI, 328 (*Strat. euchlora*).—Mex. [Will.]

JENNICKE, Neue Exot. Dipt., 16 (*prasina*).—Mex. [Will.]

JOHNSON, Trans. Amer. Ent. Soc., XXII, 272, quotes Macquart and transl. Bellardi.

WILLISTON, Biologia, Dipt., I, 245, syn. and oc. at Morelia, Mex.

? *limbipennis* MACQUART, Dipt. Exot., Suppl., II, 30.—“America?”

WALKER, List, v, 39 (*Stratiomys*).—America.

OSTEN SACKEN, Cat., 225, note 57, on locality;—doubtful if North American.

maculifrons WALKER, List, III, 536.—Honduras.

JOHNSON, Trans. Amer. Ent. Soc., XXII, 277, quotes orig. desc.

mexicana JOHNSON, Trans. Amer. Ent. Soc., XXII, 271.—Tehuantepec, Mex.

microstoma LOEW, Cent., VI, 28.—Mass. and N. Y.

DAY, Proc. Acad. Nat. Sci. Phil., 1882, 77.

JOHNSON, Trans. Amer. Ent. Soc., XXII, 264, pl. iv, f. 20.—N. J., Md., N. Y., Mass.

nigerrima LOEW, Cent., X, 6.—Middle States.

DAY, Proc. Acad. Nat. Sci. Phil., 1882, 82, transl. orig. desc.

? JOHNSON, Trans. Amer. Ent. Soc., XXII, 258, pl. iv, f. 25.—Kans.; recognized with a doubt.

nigrirostris LOEW, Cent., VI, 19.—N. Wis.

DAY, Proc. Acad. Sci. Phil., 1882, 83, transl. orig. desc.

JOHNSON, Trans. Amer. Ent. Soc., XXII, 257, pl. III, f. 36, 37.—Mich., Col., S. D., Wyo.

COCKERELL, Jour. N. Y. Ent. Soc., VI, 206, oc. at Agency, Wyo.

obscura OLIVIER, Encycl. Méthodique, VIII, 433, 434 (the latter as *brevipennis*).—Carolina. [Johnson.]

MACQUART, Dipt. Exot., I, 2, 189, type redesc.

? WALKER, List, v, 38 (*Stratiomys*). Query by Johnson.

DAY, Proc. Acad. Nat. Sci. Phil., 1882, 86, 88 (*brevipennis*).

JOHNSON, Trans. Amer. Ent. Soc., XXII, 270.—Fla., Car., Va.

occipitalis JOHNSON, Trans. Amer. Ent. Soc., XXII, 268, pl. iv, f. 23, 24.—Pa., Va.

pilimanus LOEW, Cent., VI, 27.—Ill.

DAY, Proc. Acad. Nat. Sci. Phil., 1882, 83, transl. orig. desc.

JOHNSON, Trans. Amer. Ent. Soc., XXII, 263, pl. iv, f. 11, 12.—Ill., Nebr., S. D.

- pilosus** DAY, Proc. Acad. Nat. Sci. Phil., 1882, 76 (*pilosus*).—Cal.
BIGOT, Annales, 1887, 25 (*pyrrhostoma*).—Mt. Hood, Ore. [Johnson.]
JOHNSON, Trans. Amer. Ent. Soc., XXII, 258, pl. iv, f. 13, 14.—Cal.: Los Angeles, Santa Clara and Kern Cos.
- prasina** JENNICKE, see *lefebvrei*.
- pubescens** DAY, Proc. Acad. Nat. Sci. Phil., 1882, 77.—Mass., Cal.
JOHNSON, Trans. Amer. Ent. Soc., XXII, 264, pl. iv, f. 15, 16.—Col., Nebr., S. D., Ariz., Cal., Can., Mich., Mass., N. H., Me. Montreal—Chagnon.
- pyrrhostoma** BIGOT, see *pilosus*.
- quadrinaculata** BELLARDI, Saggio, I, 37, pl. I, f. 15.—Mex.
JOHNSON, Trans. Amer. Ent. Soc., XXII, 274, transl. orig. desc.
WILLISTON, Biologia, Dipt., I, 246, oc. in Guerrero, Mex.
- rubricornis** MACQUART, Dipt. Exot., Suppl., I, 53.—Yucatan.
JOHNSON, Trans. Amer. Ent. Soc., XXII, 276, transl. orig. desc.
WILLISTON, Biologia, Dipt., I, 247, oc. in Tabasco, Mex.
- rufipes** LOEW, Cent., VI, 25 and 26 (the latter as *scalaris*).—Cuba. [Coq.]
JOHNSON, Trans. Amer. Ent. Soc., XXII, 253, transl. orig. desc.
- similis** JOHNSON, Trans. Amer. Ent. Soc., XXII, 267, pl. iv, f. 6.—Col.
- snowi** HART, see *hieroglyphica*.
- texana** JOHNSON, Trans. Amer. Ent. Soc., XXII, 259 (*texasiana*).—Waco, Texas.
- trivittata** SAY, Jour. Acad. Sci. Phil., VI, 160; Compl. Works, II, 356 (*Stratiomys*).—Mex.
BELLARDI, Saggio, I, 38, pl. I, f. 17 (*tritaniata*).—Cuantla, Mex. [Johnson.]
OSTEN SACKEN, Biologia, Dipt., I, 36 (id.).—Guatemala.
JOHNSON, Trans. Amer. Ent. Soc., XXII, 259, pl. iv, f. 19.—Fla., Col.
WILLISTON, Biologia, Dipt., I, 245, oc. in Jalisco, Mex.
- truquii** BELLARDI, Saggio, I, 34, pl. I, f. 11.—Cuernavaca, Mex.
LOEW, Cent., VI, 20 and 22 (*megacephala* and *binotata*).—Cal. and Ill.
DAY, Proc. Acad. Nat. Sci. Phil., 1882, 78 (*bicolor*).—Cal.
JOHNSON, Trans. Amer. Ent. Soc., XXII, 251 (*binotata*).—U. S. generally.
WILLISTON, Biologia, Dipt., I, 246, syn., etc.—Guerrero and Morelos, Mex.
- varipes** LOEW, Cent., VI, 21.—Carolina.
DAY, Proc. Acad. Nat. Sci. Phil., 1882, 84, transl. orig. desc.
JOHNSON, Trans. Amer. Ent. Soc., XXII, 252, type redesc.
- vertebrata** SAY, Long's Exped., App., 369; Compl. Works, I, 251.—N. W. Terr.
WIEDEMANN, Auss. Zw., II, 73.
WALKER, List, v, 39 (*Stratiomys*).—N. A.
? BELLARDI, Saggio, I, 38.—Morelia, Mex.; query by Johnson.
DAY, Proc. Acad. Nat. Sci. Phil., 1882, 78 and 85 (the former as *willis-tonii*).—N. Y. [Johnson.]
JOHNSON, Trans. Amer. Ent. Soc., XXII, 260, pl. iv, f. 26-28.—Pa., N. J., S. D., Mich., Mass., Mo.
HART, Bull. Ill. State Lab. Nat. Hist., IV, 262, desc. and figs. of eggs, larva and pupa.
Montreal—Chagnon.
- vicina** MACQUART, Dipt. Exot., I, I, 188.—Cuba. Note.—There is another *vicina* of Macquart, D. E. I, I, 181, which is a synonym of *O. flavicornis*.
WALKER, List, v, 40.
JOHNSON, Trans. Amer. Ent. Soc., XXII, 276, transl. orig. desc.
- virgo** WIEDEMANN, Auss. Zw., II, 69 (*Stratiomys*).—Savannah, Ga.
WALKER, List, III, 536 (*paron*); v, 39 (*Stratiomys*).—Trenton Falls, N. Y.; N. A. [Johnson.]

- LOEW, Cent., x, 5 (*plebeia*).—Conn. [Johnson.]
 DAY, Proc. Acad. Nat. Sci. Phil., 1882, 75 (*nigra*).—Kans. [Johnson.]
 JOHNSON, Trans. Amer. Ent. Soc., xxii, 262, pl. iv, f. 31-35.—N. H. and
 Ga. to Texas and Col. Montreal—Chagnon.
viridis BELLARDI, Saggio, i, 36, pl. i, f. 16.—Cuantla, Mex.
 JOHNSON, Trans. Amer. Ent. Soc., xxii, 270, pl. iv, f. 18.—Waco, Texas.
 WILLISTON, Biologia, Dipt., i, 246, oc. in Teapa, Mex., and notes.

MYXOSARGUS.

- BRAUER, Zweifl. d. Kaiserl. Mus., ii, 21, 1882.
fasciatus BRAUER, op. cit., 22.—Orizaba, Mex.
 OSTEN SACKEN, Berl. Ent. Zeitsch., 1882, 368.—Texas.
 ROEDER, Entom. Nachrichten, xii, 139, 1886.—Ga.
 GIGLIO-TOS, Ditt. del Mess., i, 13.—Mex.
 WILLISTON, Trans. Amer. Ent. Soc., xv, 254, oc. in N. C.; Biologia, Dipt.,
 i, 251, note.
scutellatus WILLISTON, Biologia, Dipt., i, 251.—Teapa, Mex.

NOTHOMYIA.

- LOEW, Cent., viii, 4, 1869.
 BRAUER, Zweifl. d. Kaiserl. Mus., ii, 13, 1882.
calopus LOEW, Cent., viii, 5.—Cuba.
scutellata LOEW, Cent., viii, 4.—Cuba.

EUPARYPHUS.

- GERSTAECKER, Linnæa Ent., xi, 314, 1857.
 BRAUER, Zweifl. d. Kaiserl. Mus., ii, 11, 1882.
 OSTEN SACKEN, Biologia, Dipt., i, 39, tables of N. A. species.
 ADAMS, Kans. Univ. Sci. Bull., ii, 28, 1903, table of species.
albipilus ADAMS, Kans. Univ. Sci. Bull., ii, 30.—Flagstaff, Ariz., and Colorado
 Springs, Colo.
amplius COQUILLET, Proc. U. S. N. M., xxv, 100.—Chimney Gulch, Col.
apicalis COQUILLET, Proc. U. S. N. M., xxv, 99.—Siskyou Co., Cal.
atriventris COQUILLET, Proc. U. S. N. M., xxv, 100.—Greeley, Col.
bellus LOEW, Cent., vii, 18.—Mass.
 WILLISTON, Canad. Ent., xvii, 127.—Pa.
 Montreal—Chagnon.
brevicornis LOEW, Cent., vii, 16.—D. C.
carbonarius GIGLIO-TOS, Boll. R. Univ. Torino, vi, no. 102, 1891; Ditt. del Mess.,
 i, 12, pl. i, f. 5.—Mex.
crucigerus COQUILLET, Pr. U. S. N. M., xxv, 99.—Colo.
?decemmaculatus OSTEN SACKEN, Biologia, Dipt., i, 40.—N. Sonora, Mex.;
 gen. ref. with a doubt.
elegans WIEDEMANN, Auss. Zw., ii, 58 (*Cyphomyia*).—Mex.
 GERSTAECKER, Linnæa Ent., xi, 316.—Mex.
elongatulus WILLISTON, Biologia, Dipt., i, 249.—Guerrero, Mex.
limbocutris WILLISTON, published by Adams, Kans. Univ. Sci. Bull., ii, 31.
 WILLISTON, Canad. Ent., xvii, 126 (*Euparyphus* sp.).—Wash.
mutabilis ADAMS, Kans. Univ. Sci. Bull., ii, 29.—Lusk, Wyo., and Colorado Spr.,
 Colo.
niger BIGOT, Annales, 1879, 204.—Cal.
ornatus WILLISTON, Canad. Ent., xvii, 126.—Wash.

- septemmaculatus** ADAMS, Kans. Univ. Sci. Bull., II, 31.—Palo Alto, Calif.
stigmatalis LOEW, Cent., VII, 17.—D. C. West. N. Y.—O. S.
tahoensis COQUILLETT, Pr. U. S. N. M., XXV, 98.—L. Tahoe, Cal.
tetraspilus LOEW, Cent., VII, 15.—New York. Quebec—O. S.
tricolor OSTEN SACKEN, Biologia, Dipt., I, 40.—N. Sonora, Mex.

EURYNEURA.

- SCHINER, Verh. Zool.-Bot. Ges., 1867, 308; Novara, 56, 1868.
 BRAUER, Zweifl. d. Kaiserl. Mus., II, 11, 1882.
 WILLISTON, Biologia, Dipt., I, 250, notes, 1900.
propinqua SCHINER, Novara, 57.—Colombia.
 GIGLIO-TOS, Ditt. del Mess., I, 15.—Orizaba, Mex.
pygmæa BELLARDI, Saggio, App., 12, f. 5 (*Clitellaria*).—Tuxpango, Mex.
 SCHINER, Novara, 56, gen. ref.
 GIGLIO-TOS, Ditt. del Mess., I, 15, note on types.

CLITELLARIA.

- MEIGEN, Illig. Mag., II, 265, 1803; Syst. Besch., III, 119, 1822.
 ZETTERSTEDT, Dipt. Scand., IX, 3709, 1850.
 SCHINER, Fauna Austr., I, 8, 1862.
anchialus WALKER, List, III, 522; IV, 1157, says may be var. of *chalybea* WIED., for which see *Neorondania*.—Jamaica.
argentata WILLISTON, Canad. Ent., XVII, 127.—Ariz.
fenestrata MACQUART, Dipt. Exot., Suppl., I, 54 (*Ephippium*).—Yucatan; gen. ref. in O. S. Cat.
halala WALKER, List, III, 523.—Honduras.
lata LOEW, Cent., X, 9.—Cal. Wash.—Williston.
obesa WALKER, Trans. Ent. Soc., V, 270.—Mex.
rustica OSTEN SACKEN, West. Dipt., 213.—Sonoma, Marin and Sierra Cos., Cal. N. Ida.—J. M. A.
stigma GIGLIO-TOS, Boll. R. Univ. Torino, VI, no. 102; Ditt. del Mess., I, 13.—Mex.
subulata LOEW, Cent., VI, 29.—Va.

NEMOTELUS.

- GEOFFROY, Hist. Nat. Ins., II, 542, 1764.
 MEIGEN, Syst. Besch., III, 113, 1822.
 ZETTERSTEDT, Dipt. Scand., I, 146, 1842.
 SCHINER, Fauna Austr., I, 3, 1862.
 MELANDER, Psyche, 1903, 171-174, table of species.
abdominalis ADAMS, Kans. Univ. Sci. Bull., II, 221.—Englewood, Kans.
acutirostris LOEW, Cent., III, 13.—Cuba.
 MELANDER, Psyche, 1903, 181, transl. of desc.
 St. Augustine, Fla.—Johnson.
albirostris MACQUART, Dipt. Exot., Suppl., IV, 55, pl. III, f. 8.—Va.
 MELANDER, Psyche, 1903, 182, pl. IV, transl. of desc.
arator MELANDER, Psyche, 1903, 179, pl. IV.—San Diego Co., Cal.
bellulus MELANDER, Psyche, 1903, 183, pl. IV.—Galveston, Tex.
bruesii MELANDER, Psyche, 1903, 179, pl. IV.—Austin, Tex.
canadensis LOEW, Cent., III, 12.—Ft. Resolution, Huds. Bay Terr.
 MELANDER, Psyche, 1903, 175, transl. of desc.

- carbonarius** LOEW, Cent., viii, 6.—Mass.
 MELANDER, Psyche, 1903, 177, transl. of desc.
 N. J.—Smith Cat.; St. Augustine and Charlotte Harbor, Fla.—Johnson.
- carneus** WALKER, List, iii, 521.—Martin Falls, Canada.
 MELANDER, Psyche, 1903, 178, quotes desc.
- crassus** LOEW, Cent., iii, 10.—R. I.
 MELANDER, Psyche, 1903, 175, pl. iv, transl. of desc.
 W. Kansas—Williston; N. J.—Smith Cat.
- flavicornis** JOHNSON, Proc. Acad. Nat. Sci. Phil., 1894, 272.—Jamaica.
 MELANDER, Psyche, 1903, 180, quotes desc.
- glaber** LOEW, Cent., x, 10.—Texas.
 MELANDER, Psyche, 1903, 177, transl. of desc.
- immaculatus** JOHNSON, Proc. Acad. Nat. Sci. Phil., 1895, 304.—St. Augustine, Fla.
 MELANDER, Psyche, 1903, 181, quotes desc.
- kansensis** ADAMS, Kans. Univ. Sci. Bull., ii, 221.—Englewood, Kans.
- nigrinus** FALLÉN, Stratiomydæ, 6.—Europe.
 CURTIS, British Ent., 729.
 MEIGEN, Syst. Besch., iii, 117.
 MACQUART, Hist. Nat. Dipt., i, 266.
 ZETTERSTEDT, Ins. Lapp., 575; Dipt. Scand., i, 151.
 SCHINER, Fauna Austr., i, 5.
 VAN DER WULP, Tijdschr. v. Ent., x, 126, oc. in Wis.
 Montreal—Chagnon.
- pallipes** SAY, Jour. Acad. Sci. Phil., iii, 29; Compl. Works, ii, 52.—Pa.
 WIEDEMANN, Auss. Zw., ii, 45.
 MELANDER, Psyche, 1903, 178, quotes Say.
- polypus** SAY, Jour. Acad. Sci. Phil., vi, 160; Compl. Works, ii, 356.—Mex.
 WILLISTON, Biologia, Dipt., i, 251, oc. at Mexico City, and note.
 MELANDER, Psyche, 1903, 178, quotes desc.
- slossonæ** JOHNSON, Proc. Acad. Nat. Sci. Phil., 1895, 304.—Charlotte Harbor, Fla.
 MELANDER, Psyche, 1903, 181, quotes desc.
- trinitatus** MELANDER, Psyche, 1903, 180, pl. iv.—Austin, Texas.
- tristis** BIGOT, Annales, 1887, 30.—Cal.
 MELANDER, Psyche, 1904, 177, transl. of desc.
- unicolor** LOEW, Cent., iii, 11.—Ill.
 WILLISTON, Canad. Ent., xvii, 128, oc. in Pa.; Biologia, Dipt., i, 251, oc. in Teapa, Mex., with a doubt.
 MELANDER, Psyche, 1903, 176, pl. iv.—Ill.
- wheeleri** MELANDER, Psyche, 1903, 182, pl. iv.—Galveston, Texas.

OXYCERA.

- MEIGEN, Illig. Mag., ii, 265, 1803; Syst. Besch., iii, 123, 1822.
 MACQUART, Hist. Nat. Dipt., i, 249, 1834.
 ZETTERSTEDT, Dipt. Scand., i, 141, 1842.
 SCHINER, Fauna Austr., i, 9, 1862.
 BRAUER, Zweifl. d. Kaiserl. Mus., ii, ii, 1882.
- centralis** LOEW, Cent., iii, 14.—Red R. of the North.
- crotchi** OSTEN SACKEN, West. Dipt., 212.—Cal.
- liburna** WALKER, List, iii, 528.—Jamaica.

maculata OLIVIER, Encycl. Méthodique, viii, 600.—Carolina.

MACQUART, Dipt. Exot., 1, 2, 190, type redesc.

D. C. and Mass.—O. S.; N. J.—Smith Cat.

metallica WIEDEMANN, Auss. Zw., ii, 60.—St. Thomas, W. I.

Perhaps a *Nothomyia*—Loew, in O. S. Cat.

picta VAN DER WULP, Tijdschr. v. Ent., x, 133.—Wis.

LOEW, Zeitsch. f. Ges. Naturwiss., xxxvi, 117.

unifasciata LOEW, Cent., iii, 15.—Pa.

variegata OLIVIER, Encycl. Méthodique, vii, 600.—Carolina.

MACQUART, Dipt. Exot., 1, 2, 191.—Carolina.

AOCHLETUS.

OSTEN SACKEN, Biologia, Dipt., 1, 38, 1886.

WILLISTON, Dipt. St. Vincent, 300, 1896.

bistriatus WILLISTON, Dipt. St. Vincent, 300, pl. x, f. 76.—St. Vincent, W. I.

cinctus OSTEN SACKEN, Biologia, Dipt., 1, 38.—N. Sonora, Mex.

obscurus COQUILLET, Pr. U. S. N. M., xxv, 98.—S. Cal. and Ariz.

PELAGOMYIA.

WILLISTON, Manual of N. A. Dipt., 48, 1896.

albitalus WILLISTON, Dipt. St. Vincent, 299, pl. x, f. 75.—St. Vincent, W. I.

NEOCHAUNA.

WILLISTON, Manual of N. A. Dipt., 48, change of name.

LOEW, Stett. Ent. Zeit., viii, 370, 1847 (*Chauna*, preoc.).

GERSTÆCKER, Linnæa Ent., xi, 338, 1857 (*id.*).

BRAUER, Zweifl. d. Kaiserl. Mus., ii, 7, 1882.

variabilis LOEW, Stett. Ent. Zeit., viii, 370, pl. i, f. 11-15.—Cuba.

GERSTÆCKER, Linnæa Ent., xi, pl. iii, f. 7 (*ferruginea*).—Cuba.

Syn. by Loew, Berl. Ent. Zeitsch., ii, 349.

ACANTHINA.

WIEDEMANN, Auss. Zw., ii, 50, 1830.

GERSTÆCKER, Linnæa Ent., xi, 335, 1857.

BRAUER, Zweifl. d. Kaiserl. Mus., ii, 7, 1882.

argentea OSTEN SACKEN, Biologia, Dipt., 1, 41.—Costa Rica, Colombia.

WILLISTON, Biologia, Dipt., 1, 249, oc. in Atoyac, Mex.

? *bellardii* GIGLIO-TOS, Boll. R. Univ. Torino, vi, no. 102, 1891; Ditt. del Mess.,
1, 14.—Tehuacan, Mex.; gen. ref. with a doubt.

inornata WILLISTON, Biologia, Dipt., 1, 249, pl. iv, f. 17.—Atoyac, Mex.

nana BELLARDI, Saggio, App., 9.—Tuxpango, Mex.

ornata MACQUART, Dipt. Exot., Suppl., 1, 51, pl. v, f. 5.—Mex.

BELLARDI, Saggio, 1, 28.—Mexico City.

CYNIPIMORPHA.

BRAUER, Zweifl. d. Kaiserl. Mus., ii, 19, 1882.

bilimeki BRAUER, op. cit., 19.—Cuernavaca and Orizaba, Mex.

minuta WILLISTON, Biologia, Dipt., 1, 252, pl. iv, f. 19, 19a.—Chilpancingo, Mex.

PACHYGASTER.

MEIGEN, Illig. Mag., II, 266, 1803; Syst. Besch., III, 102, 1822.

MACQUART, Hist. Nat. Dipt., I, 264, 1834.

ZETTERSTEDT, Dipt. Scand., I, 151, 1842.

SCHINER, Fauna Austr., I, 3, 1862.

BRAUER, Zweifl. d. Kaiserl. Mus., II, 9, 1882.

maculicornis HINE, Ohio Naturalist, II, 228, 1902.—Onaga, Kans.; generic ref. slightly doubtful.

pulcher LOEW, Cent., III, 16.—D. C.

TOWNSEND, Trans. Amer. Ent. Soc., XXII, 55, oc. at Las Cruces, N. M., and notes.

N. J.—Smith Cat.; White Mts., N. H.—Slosson.

Note.—Loew's description of the female should be ignored. I examined the types at the request of Mr. Kahl, and as he expected, found one female of a *Pachygaster*, and both the male and female of a species belonging to a different genus, the eyes of the male being separated. These are all referred to in one way or another under the description of the female, which consequently becomes useless to science.

LOPHOTELES.

LOEW, Berl. Ent. Zeitsch., 1858, 110.

WILLISTON, Ent. News, VII, 185, reports the genus from N. A. (*Lophoteles*, a misprint.)

• **pallidipennis** WILLISTON, Biologia, Dipt., I, 250, pl. IV, f. 16.—Atoyac, Mex.

ZABRACHIA.

COQUILLET, Bull. 47, N. Y. State Museum, 585, 1901.

polita COQUILLET, op. cit.—Saranac Inn, N. Y.

TABANIDÆ.

LOEW, Dipterenfauna Südafrika's, 14, extended discussion of family and genera.
BIGOT, Bull. Soc. Zool. France, XII, 412, extensive table of genera of the world.
HART, Bull. Ill. State Lab. Nat. Hist., IV, 225, keys to some genera by eggs, larvæ and pupæ.

HOWARD, Bull. 20, n. ser., Div. Ent., 24, a Russian method of destroying.

HINE, Tabanidæ of Ohio (Ohio Acad. Sci. special papers, no. 5, 1903). 63 pp., 2 pl.; redescribes all Ohio species; considerable biological matter; table of N. A. genera.

DICLISA.

SCHINER, Verh. Zool.-Bot. Ges., 1867, 311.

maculipennis SCHINER, Novara, 102, pl. 17, f. 17.—S. A.

OSTEN SACKEN, Biologia, Dipt., I, 47.—Panama, Vera Cruz; oc. and note.

misera OSTEN SACKEN, Biologia, Dipt., I, 47.—Guatemala.

PANGONIA.

LATREILLE, Hist. Nat. Crust. et Ins., III, 437, 1802.

MEIGEN, Syst. Besch., II, 15, 1820.

MACQUART, Hist. Nat. Dipt., I, 191, 1834.

SCHINER, Fauna Austr., I, 43, 1862.

BELLARDI, Saggio, I, 46, partial table of species.

OSTEN SACKEN, Prodrôme, I, 365, partial table of species.

BIGOT, Bull. Ent. Soc. France, 1879, No. 6 (*Sackenimyia*, in part).

WILLISTON, Biologia, Dipt., 1, 252, table of Mexican species.

HINE, Tabanidæ of Ohio, 45, 1903, table of three eastern spp.

atrifera WALKER, Trans. Ent. Soc., v, 272.—Mex.

aurulans WIEDEMANN, Auss. Zw., II, 620.—Mex.

californica BIGOT, Mém. Soc. Zool. France, v, 618 (*Diatomineura*).—Cal.

caustica OSTEN SACKEN, Biologia, Dipt., 1, 44.—Durango, Mex.

chrysocoma OSTEN SACKEN, see *Goniops*.

dives WILLISTON, Kans. Acad. Sci., x, 130.—Cal.

fera WILLISTON, Kans. Acad. Sci., x, 130.—Mt. Hood, Ore.

flavohirta BELLARDI, Saggio, 1, 49.—Mex.

WILLISTON, Biologia, Dipt., Suppl., 254, oc. in Guerrero, Mex.; note.

fulvithorax WIEDEMANN, Auss. Zw., 1, 89.—Brazil.

BIGOT, R. de la Sagra, 797, oc. in Cuba; this identification should be verified.

fusiformis WALKER, Dipt. Saund., 19.—N. A.

hera OSTEN SACKEN, West. Dipt., 214.—San Francisco.

illota WILLISTON, Biologia, Dipt., 1, 254.—Ruatan Id., Honduras.

incerta BELLARDI, Saggio, 1, 52.—Mex.

incisuralis SAY, Jour. Acad. Sci. Phil., III, 31; Amer. Ent., pl. xxxiv; Compl. Works, 1, 75.—Arkansas.

WIEDEMANN, Auss. Zw., 1, 90 (name changed to *incisa*).

WILLISTON, Kans. Acad. Sci., x, 130.—Col., N. M.

isabellina WIEDEMANN, Auss. Zw., 1, 112 (*Silvius*).—N. A.

OSTEN SACKEN, Cat., 225,—may be a pale *pigra*.

macroglossa WESTWOOD, Lond. and Edinb. Philosoph. Mag., 1835.—Ga.

OSTEN SACKEN, Prodrôme, 368, quoted.

nigronotata MACQUART, Dipt. Exot., Suppl., iv, 27, pl. II, f. 5.—Mex.

BELLARDI, Saggio, 1, 51, 52 (the latter *P. certa*) [Will.].

WILLISTON, Biologia, Dipt., Suppl., 254.—Guerrero and Orizaba, Mex.

pavida WILLISTON, Biologia, Dipt., 1, 253.—Guerrero, Mex.

pigra OSTEN SACKEN, Prodrôme, 1, 367.—N. Y., Ky. N. J.—Smith Cat.

planiventris MACQUART, Dipt. Exot., Suppl., iv, 26.—Mex.

prasiniventris MACQUART, Dipt. Exot., Suppl., 1, 29, pl. III, f. 9.—Colombia.

SCHINER, Novara, 100.—S. A.

OSTEN SACKEN, Biologia, Dipt., 1, 45, oc. in Panama.

pyrausta OSTEN SACKEN, Biologia, Dipt., 1, 43.—Panama.

WILLISTON, Kans. Univ. Quart., III, 189, oc. in Mazatlan, Mex.; Biologia, Dipt., 1, 253, oc. in Tepic, Mex., and note.

rasa LOEW, Cent., VIII, 7.—N. Wis.

OSTEN SACKEN, Prodrôme, 1, 366.—Ill., N. Y.

WILLISTON, Kans. Acad. Sci., x, 130, oc. in Conn. and notes.

HINE, Ohio Nat., II, 169, oc. in Medina, O., and note on male.

HINE, Tabanidæ of Ohio, 45.—Ohio.

rhinophora BELLARDI, Saggio, 1, 46, pl. II, f. 1.—Mex.

rostrifera BELLARDI, Saggio, 1, 47.—Mex.

WILLISTON, Biologia, Dipt., Suppl., 253, oc. in Misantla and Teapa, Mex.

ruficornis BIGOT, Mém. Soc. Zool. France, v, 615 (*Corizoneura*).—Cal.

sallei BELLARDI, Saggio, 1, 50.—Mex.

saussurei BELLARDI, Saggio, 1, 49, pl. II, f. 4.—Mex.

WILLISTON, Biologia, Dipt., 1, 254, oc. in Guerrero and Orizaba, Mex.

semiflava WIEDEMANN, Auss. Zw., II, 622.—Mex.

- MACQUART, Dipt. Exot., Suppl., iv, 27 (*bicolor*).—Mex. [Bellardi.]
 WILLISTON, Biologia, Dipt., Suppl., 253, oc. in Guerrero, several places.
seminuda COQUILLET, Jour. N. Y. Ent. Soc., x, 137.—Chihuahua, Mex.
tenuirostris WALKER, Trans. Ent. Soc., v, 272.—Mex.
tranquilla OSTEN SACKEN, Prodrôme, i, 367.—Pa., Mass., N. H., Quebec.
 WILLISTON, Kans. Acad. Sci., x, 130, oc. in N. Y.; notes.
velutina BIGOT, Mém. Soc. Zool. France, v, 615 (*Corizoneura*).—Cal.
wiedemanni BELLARDI, Saggio, i, 48.—Mex.
 WIEDEMANN, Auss. Zw., ii, 621 (*basilaris*, preoc.).—Mex.
 WALKER, List, v, 120 (id.).—Mex.
 WILLISTON, Biologia, Dipt., Suppl. 254, oc. in Guerrero; note.

GONIOPS.

- ALDRICH, Psyche, March, 1892, 236.
 HINE, Tabanidæ of Ohio, 45, 1903, note.
chrysocoma OSTEN SACKEN, Prodrôme, i, 368 (*Pangonia*).—Trenton Falls, N. Y.; Delaware.
 WILLISTON, Kans. Acad. Sci., x, 130, notes (*Pangonia*).
 ALDRICH, Psyche, March, 1892, 236, figs. (*hippoboscoides*).—Pa.
 HINE, Ent. News, xi, 392, synonymy and habits; oc. in Ohio.
 ALDRICH, Ent. News, xi, 531, acknowledges synonymy.
 HINE, Ohio Nat., ii, 168, habits; Tabanidæ of Ohio, 45.—Ohio.
 N. J.—Smith Cat.

Note.—The validity of the genus *Goniops* is a question which should be taken up in connection with the status of a considerable number of other related genera of Pangoninæ; I allow it to stand pending such an investigation.

APATOLESTES.

- WILLISTON, Entom. Americana, i, 12, 1885.
comastes WILLISTON, loc. cit.—Cal.
 ? TOWNSEND, Proc. Cal. Acad. Sci., iv, 596, oc. in Lower Cal., with a doubt.
 ? *eiseni* TOWNSEND, Proc. Cal. Acad. Sci., iv, 596.—Lower Cal.; generic reference with a doubt.

SILVIUS.

- MEIGEN, Syst. Besch., ii, 27, 1820.
 MACQUART, Hist. Nat. Dipt., i, 213, 1834.
 LOEW, Wien. Ent. Monat., 1858, 350.
 SCHINER, Fauna Austr., i, 43.
gigantulus LOEW, Cent., x, 12 (*Chrysops*).—Cal.
 OSTEN SACKEN, Prodrôme, i, 395 (*trifolium*); West. Dipt., 215.—Vancouver Id. and Wash.; Cal. and Col., and synonymy.
 TOWNSEND, Proc. Cal. Acad. Sci., iv, 595.—Cal.
 WILLISTON, Kans. Acad. Sci., x, 131, notes; adds Idaho and N. M. to the localities.
pollinosus WILLISTON, Trans. Conn. Acad. Sci., iv, 244; Kans. Acad. Sci., x, 131, notes and generic characters.—Western Kans.
quadrivittatus SAY, Jour. Acad. Sci. Phil., iii, 33; Compl. Works, ii, 54 (*Chrysops*).—Near Rocky Mts.
 WIEDEMANN, Auss. Zw., i, 200.
 WILLISTON, Kans. Acad. Sci., x, 131.—Cal.

BIGOT, Mém. Soc. Zool. France, v, 623 (*Diachlorus notatus*) [J. M. A.].—Cal.

TOWNSEND, Trans. Amer. Ent. Soc., xxii, 57.—notes; S. D., N. M., Kans.

CHRYSOIDS.

MEIGEN, Illig. Mag., ii, 1803, 267; Syst. Besch., ii, 50, 1820.

MACQUART, Hist. Nat. Dipt., i, 214, 1834.

ZETTERSTEDT, Dipt. Scand., i, 123, 1842.

LOEW, Verh. Zool.-Bot. Ges., 1858, 613.

SCHINER, Fauna Austr., i, 39, 1862.

OSTEN SACKEN, Prodrôme, i, 369, 1875, table of U. S. species.

WILLISTON, Kans. Acad. Sci., x, 131, table of species, supplementary to O. S.

HINE, Tabanidæ of Ohio, 32, 1903. Tables of males and females of Ohio species.

æstuans VAN DER WULP, Tijdsch. v. Ent., x, 135; pl. iii, f. 8, 9.—Wis.

? WALKER, List, i, 201 (*marens*).—Nova Scotia [O. S., with a doubt].

OSTEN SACKEN, Prodrôme, i, 378.—Red R. of the North, Ill., Dak.

LUGGER, 2d Rept., Ent. Minn., 169, mention and good figure.—Minn.

HART, Bull. Ill. State Lab. Nat. Hist., iv, 227, egg described.—Ill.

HINE, Ohio Nat., ii, 168, oc. in Ohio.

HINE, Tabanidæ of Ohio, 41 (*marens*).—Ohio.

Montreal—Chagnon.

affinis BELLARDI, Saggio, i, 70, pl. ii, f. 14.—Mex.

altivagus OSTEN SACKEN, Biologia, Dipt., i, 45, pl. i, f. 6, 7.—Durango, Mex.

apicalis BELLARDI, Saggio, i, 73.—Mex.

atricornis BIGOT, see *proclivis*.

atropos OSTEN SACKEN, Prodrôme, i, 372.—Florida, Wekiva and Indian Rivers.

? WALKER, List, i, 204 (*divisus*) [O. S., with a doubt].—Fla.

Florida, several places—Johnson.

brunneus HINE, Tabanidæ of Ohio, 34.—Sandusky, O.

5 **callidus** OSTEN SACKEN, Prodrôme, i, 379.—N. J., Del., Conn., Mich., Ill.

TOWNSEND, Trans. Amer. Ent. Soc., xxii, 56, notes.—Va.

HINE, Tabanidæ of Ohio, 35.—Ohio; egg-laying mentioned, p. 4.

Wash.—Williston; Ill.—Hart; Montreal—Chagnon; Fla.—Johnson.

5 **celer** OSTEN SACKEN, Prodrôme, i, 376.—Middle States, Mass.

HINE, Tabanidæ of Ohio, 36.—Ohio.

Quebec—Wulp; N. J.—Smith Cat.; Montreal—Chagnon.

ceras TOWNSEND, Psyche, March, 1897, 38.—Gila R., N. M.

coloradensis BIGOT, Mém. Soc. Zool. France, v, 605.—Col.

costatus FABRICIUS, Ent. Syst., iv, 373 (*Tabanus*); Syst. Antl., 112.—S. A.

PALISOT, Ins. Dipt., 223, pl. iii, f. 7.

WIEDEMANN, Dipt. Exot., 104; Auss. Zw., i, 198.—S. A.

MACQUART, Dipt. Exot., i, 1, 160.—Cuba.

BIGOT, Sagra's Cuba, 798.—Cuba.

GUÉRIN, Iconog., text, iii, 542; pl. xcvi (called *molestus* on the plate—O. S.).

? DEGEER, Mémoires, iv, pl. xxx, f. 7 (*Tabanus variegatus*). [O. S. with a doubt.]

RONDANI, Esame, etc., 44 (*vulneratus*). [O. S.]

WILLISTON, Kans. Acad. Sci., x, 134.—San Domingo, Cuba, Jamaica.

OSTEN SACKEN, Biologia, Dipt., i, 46, oc. in Guatemala and Nicaragua.

WILLISTON, Biologia, Dipt., i, 255, oc. Vera Cruz and Tabasco.

- TOWNSEND, Trans. Amer. Ent. Soc., XXII, 56; Annals and Mag. Nat. Hist., XIX, 18.—Jamaica and Vera Cruz.
 Porto Rico—Roeder.
- crassicornis** VAN DER WULP, Wien. Ent. Zeit., III, 141, 1884.—Guanaxuato, Mex.
- crucians** WIEDEMANN, Auss. Zw., I, 211.—Brazil.
- JENNICKE, Neue Exot. Dipt., 41.—Cuba.
- cuclux** WHITNEY, Canad. Ent., XI, 35.—Milford, N. H.
- cursim** WHITNEY, see *pudicus*.
- delicatulus** OSTEN SACKEN, Prodrôme, I, 380.—N. Conway, N. H.
- discalis** WILLISTON, Trans. Conn. Acad. Sci., IV, 245.
- excitans** WALKER, Dipt. Saund., 72.—Cape Breton.
 OSTEN SACKEN, Prodrôme, I, 373.—Anticosti to Yukon R., N. Y., N. H.
 WILLISTON, Kans. Acad. Sci., X, 132, oc. Wash.
 Ill.—Hart; Montreal—Chagnon; Axton, N. Y.—M. & H.
- facialis** TOWNSEND, Psyche, March, 1897, 39.—Gila R., N. M.
- fallax** OSTEN SACKEN, Prodrôme, I, 392.—Mass., N. Y., Del., Md.
 HINE, Tabanidæ of Ohio, 36.—Ohio.
 N. J.—Smith Cat.
- flavidus** WIEDEMANN, Dipt. Exot., I, 105; Auss. Zw., I, 199.—Savannah.
 BELLARDI, Saggio, I, 73, pl. II, f. 16 (*pallidus*) [O. S.].—Mex.
 ? WALKER, List, I, 197 (*canifrons*) [O. S., with a doubt].—Fla.
 OSTEN SACKEN, Prodrôme, I, 385.—R. I., Md., Brit. Amer., N. Y.
 HINE, Tabanidæ of Ohio, 37.—Ohio.
 N. J.—Smith Cat.; Ill.—Hart; Florida, several places—Johnson.
- frazari** WILLISTON, Kans. Acad. Sci., X, 133.—San Domingo.
- frigidus** OSTEN SACKEN, Prodrôme, I, 384; II, 474.—Quebec to Great Slave Lake, N. Y., Mass.
 HINE, Tabanidæ of Ohio, 37.—Ohio.
- frontalis** MACQUART, Dipt. Exot., I, 1, 160.—San Domingo.
 WALKER, List, V, 284, oc. in Brazil.
- fugax** OSTEN SACKEN, Prodrôme, I, 375.—Maine, N. H., Canada, divide between Idaho and Montana; Yukon R.
 ? WALKER, List, I, 203 (*carbonarius*, in part) [O. S., with a doubt].—Nova Scotia.
 ? MACQUART, Dipt. Exot., Suppl., IV, 40 (*ater*) [O. S., with a doubt].—Newfoundland.
 WILLISTON, Kans. Acad. Sci., X, 132, notes; oc. in Anticosti, Mass., and Col.
 N. J.—Smith Cat.; Montreal—Chagnon; Axton, N. Y.—M. & H.
- fulvaster** OSTEN SACKEN, West. Dipt., 221.—Col., Utah.
 WILLISTON, Kans. Acad. Sci., X, 134.—Cal., Col., Mont.
- geminatus** WIEDEMANN, Auss. Zw., I, 205, no locality.
 MACQUART, Dipt. Exot., Suppl., IV, 39.—Mex.
- hilaris** OSTEN SACKEN, Prodrôme, I, 391.—Pa., Mass., N. H., Can., Kans.
- indus** OSTEN SACKEN, Prodrôme, I, 383.—Cayuga Lake, N. Y., Montreal.
 HINE, Ohio Nat., II, 168, habits of male; oc. in Ohio.
 HINE, Tabanidæ of Ohio, 38.
 N. J.—Smith Cat.; White Mts., N. H.—Slosson.
- inornatus** WALKER, List, I, 198.—Brazil; in his Prodrôme and Catalogue, Osten Sacken adds "West Indies." but I know not on what authority.
- lateralis** WIEDEMANN, Auss. Zw., I, 209, no locality.
 WALKER, List, I, 200; V, 286, oc. in Honduras and S. A.; this needs confirmation.

latifasciatus BELLARDI, Saggio, 1, 71, pl. II, f. 15.—Mex.

OSTEN SACKEN, Biologia, Dipt., 1, 46, oc. in Mex., Guatemala, Costa Rica.

? WILLISTON, Biologia, Dipt., 1, 256, oc. in Jalapa, Mex., with a query.

lugens WIEDEMANN, Dipt. Exot., 1, 109; Auss. Zw., 1, 212.—Ga.

HINE, Tabanidæ of Ohio.—Medina, Ohio.

megaceras BELLARDI, Saggio, 1, 74, pl. II, f. 18.—Mex.

mitis OSTEN SACKEN, Prodrôme, 1, 374.—Canada to Yukon R.; Lake Superior.

? WALKER, Dipt. Saund., 73 (*provocans*) [O. S., with a doubt].—Cape Breton.

Ill.—Hart; Axton, N. Y.—M. & H.

mæchus OSTEN SACKEN, Prodrôme, 1, 387.—D. C., Ga., Ky., Mo.

HINE, Ohio Nat., II, 168, habits and oc. in Ohio.

HINE, Tabanidæ of Ohio, 39.

N. J.—Smith Cat.

montanus OSTEN SACKEN, Prodrôme, 1, 382.—Catskills, N. Y.

TOWNSEND, Trans. Amer. Ent. Soc., XXII, 57, notes and oc. in Vt.

HINE, Tabanidæ of Ohio, 40, Ohio.

N. J.—Smith Cat.; Ill.—Hart.

morosus OSTEN SACKEN, Prodrôme, 1, 389; II, 474.—Md., Fla., Tex.

? MACQUART, Dipt. Exot., 1, 1, 161 (*trinitatus*) [O. S., with a doubt].—Philadelphia.

N. J.—Smith Cat.; St. Augustine and Georgiana, Fla.—Johnson.

neglectus WILLISTON, Biologia, Dipt., 1, 156, pl. IV, f. 20.—Tabasco, Mex.

niger MACQUART, Dipt. Exot., 1, 1, 161.—N. A.

? WALKER, List, 1, 203 (*carbonarius*, var. B) [O. S., with a doubt].—Nova Scotia.

OSTEN SACKEN, Prodrôme, 1, 377.—Middle and Northern States and British Possessions.

TOWNSEND, Trans. Amer. Ent. Soc., XXII, 57, notes, Va.

HINE, Tabanidæ of Ohio, 41.—Ohio.

N. J.—Smith Cat.; Ill.—Hart; Montreal—Chagnon; Quebec—Wulp; Axton, N. Y.—M. & H.

nigribimbo WHITNEY, Canad. Ent., XI, 35.—Milford, N. H.

nigripes ZETTERSTEDT, Ins. Lapp., 519; Dipt. Scand., 1, 125.—N. Europe.

LOEW, Verh. Zool.-Bot. Ges., 1858, 623, oc. in N. A.—Sitka.

OSTEN SACKEN, Prodrôme, 1, 394, note.

Alaska—Coq.

nigriventris BIGOT, Mém. Soc. Zool. France, v, 604.—Wash.

noctifer OSTEN SACKEN, West. Dipt., 220.—Sierra Nevada, Cal.

Beulah, N. M.—Skinner.

obsoletus WIEDEMANN, Dipt. Exot., 1, 108; Auss. Zw., 1, 211.—N. A.

OSTEN SACKEN, Prodrôme, 1, 393; Cat., 225, note 68, on types.—Pa., Md., N. Y., Mass., N. H.

HINE, Tabanidæ of Ohio, 42.—Ohio.

N. J.—Smith Cat.; Montreal—Chagnon.

pachycera WILLISTON, Kans. Acad. Sci., x, 134.—Cal.

TOWNSEND, Proc. Cal. Acad. Sci., IV, 596, notes on male; oc. in Lower Cal.

pertinax WILLISTON, Kans. Acad. Sci., x, 132.—Wash.

plangens WIEDEMANN, Dipt. Exot., 1, 109, Auss. Zw., 1, 210 (both *fuliginosus*; the female is described as *plangens*, Auss. Zw., 1, 210. I do not know any reason for sacking *fuliginosus*, which is undoubtedly prior, but I follow Osten Sacken, leaving the question open).—Savannah, Ga.

N. J.—Smith Cat.; Fla.—Johnson.

proclivis OSTEN SACKEN, West. Dipt., 222, Marin Co., Cal.

BIGOT, Mém. Soc. Zool. France, v, 604 (*atricornis*).—Col. [Hine.]

HINE, Canad. Ent., xxxv, 244, oc. at Oak Creek Canyon, Ariz.

Wash. and Mt. Hood, Ore.—Williston.

pudicus OSTEN SACKEN, Prodrôme, I, 381; II, 474.—Mass., Fla.

WHITNEY, Canad. Ent., XI, 36 (*cursim*) [Williston].—Milford, N. H.

N. J.—Smith Cat.

sackeni HINE, Tabanidæ of Ohio, 42.—Sandusky, Ohio.

scalaratus BELLARDI, Saggio, I, 72, pl. II, f. 19.—Mex.

sepulchralis FABRICIUS, of Kirby, see Osten Sacken's note, Cat., 54.

sequax WILLISTON, Kans. Acad. Sci., x, 133.—W. Kans.

sordidus OSTEN SACKEN, Prodrôme, I, 376.—White Mts., N. H.

WALKER, List, I, 202 (*niger* Macquart) [O. S.].—N. Y.

WILLISTON, Kans. Acad. Sci., x, 134, note and correction.

AXTON, N. Y.—M. & H.

striatus OSTEN SACKEN, Prodrôme, I, 391.—D. C., Ill.

? WALKER, List, I, 199 (*furcatus*) [O. S., with a doubt].—Martin Falls, Canad.

? BELLARDI, Saggio, I, 74 (*vittatus* Wied.) [O. S., with a doubt].—Mex.

HINE, Tabanidæ of Ohio, 43.—Ohio.

N. J.—Smith Cat.

subcæcutiens BELLARDI, Saggio, I, 69, pl. II, f. 13.—Mex.

surdus OSTEN SACKEN, West. Dipt., 223.—Sierra Nevada.

WILLISTON, Kans. Acad. Sci., x, 134, notes.—Wash.

tanycerus OSTEN SACKEN, Biologia, Dipt., I, 46.—Costa Rica.

univittatus MACQUART, Dipt. Exot., Suppl., v, 36.—N. A.

? MACQUART, Hist. Nat. Dipt., I, 216 (*fascipennis*) [O. S., with a doubt].—Philadelphia.

PETTIT, Bull. 186, Mich. Ex. Sta., oc. at Chatham, Mich.

HINE, Tabanidæ of Ohio, 44.—Ohio.

Ill.—Hart; N. J.—Smith Cat.; Fla.—Johnson.

virgulatus BELLARDI, Saggio, I, 71, pl. II, f. 17.—Cuantla, Mex.

VAN DER WULP, Wien. Ent. Zeit., III, 141 (*crassicornis*). [Will.]

MACQUART, Dipt. Exot., Suppl., IV, 39 (*geminatus*, preoc.) [Will.].—Mex.

WILLISTON, Biologia, Dipt., I, 255.—Jalisco and Guerrero, Mex.

vittatus WIEDEMANN, Dipt. Exot., 106; Auss. Zw., I, 200.—N. A.

MACQUART, Dipt. Exot., Suppl. v, 37.—Baltimore.

WALKER, List, I, 197 (*areolatus*) [O. S.].—N. Y.

JÆNNICKE, Neue Exot. Dipt., 26 (*lineatus*) [O. S.].—Ill.

OSTEN SACKEN, Prodrôme, I, 390.—Middle and Northern States.

TOWNSEND, Trans. Amer. Ent. Soc., XXII, 57, note.—Kans.

HART, Bull. Ill. State Lab. N. H., IV, 228, figs. and desc. of larva and pupa.

HINE, Tabanidæ of Ohio, 44.—Ohio.

N. J.—Smith Cat.; Fla., several places—Johnson; Montreal—Chagnon.

LEPIDOSELAGA.

MACQUART, Dipt. Exot., I, 1, 153, 1838 (*Lepiselaga*).

PERTY, Delectus Anim., 182, 1834 (*Hadrus*, preoc.).

LOEW, Dipt. Südafrika's, 31, 1860.

WILLISTON, Biologia, Dipt., I, 262, 1901.

lepidota WIEDEMANN, Auss. Zw., 1, 193 (*Tabanus*).—Brazil.

FABRICIUS, Syst. Antl., 108 (*Hæmatopota crassipes*) [Loew].—S. A.

PERTY, Delectus Anim., 183, pl. xxxvi, f. 9 (*Hadrus*).—Brazil.

MACQUART, Dipt. Exot., 1, 1, 154, pl. xviii, f. 3.—Guiana and Brazil.

BELLARDI, Saggio, 1, 75 (*Hadrus*).—Mex.

LOEW, Cent., viii, 8 (*recta*) [Will.].—Mex.

SCHINER, Novara, 96 (*Hadrus*).—S. A.

OSTEN SACKEN, Biologia, Dipt., 1, 57 (*recta*).—Guatemala.

WILLISTON, Kans. Univ. Quart., iii, 192 (*Hadrus*); Biologia, Dipt., 1, 262, oc. in Jalisco, Mex.

TOWNSEND, Annals and Mag. Nat. Hist., xix, 19, oc. in Vera Cruz.

HÆMATOPOTA.

MEIGEN, Illig. Mag., ii, 267, 1803; Syst. Besch., ii, 58, 1820.

SCHINER, Fauna Austr., 1, 37, 1862.

americana OSTEN SACKEN, Prodrome, 1, 395.—Fort Resolution, Huds. Bay Terr.; Lake Superior, Dakota, Mont., Br. Col.

WILLISTON, Kans. Acad. Sci., x, 135, probably same as *punctulata*.

punctulata MACQUART, Dipt. Exot., 1, 1, 163.—Carolina.

N. J.—Smith Cat.

DIACHLORUS.

OSTEN SACKEN, Prodrome, ii, 475, 1876, change of name.

MACQUART, Hist. Nat. Dipt., 1, 207, 1834; Dipt. Exot., 1, 1, 150, 1838 (both *Diabasis*, preoc.).

ferugatus FABRICIUS, Syst. Antl., 111 (*Chrysops*).—Carolina.

PALISOT DE BEAUVAIS, Dipt., pl. iii, f. 6 (*Tabanus americanus*).

WIEDEMANN, Dipt. Exot., 94 (*Tabanus*); Auss. Zw., 1, 186 (id.).—Carolina.

MACQUART, Dipt. Exot., 1, 1, 152 (*Diabasis atænia*).—Carolina and Brazil.

WALKER, List, 1, 198 (*Chrysops approximatus* and *convergens*).—Fla. and Honduras.

BELLARDI, Saggio, 1, 68, pl. ii, f. 11 (*Tabanus rondanii*).—Mex.

OSTEN SACKEN, Prodrome, 1, 396; ii, 475; Cat., 55, synonymy.

WILLISTON, Biologia, Dipt., Suppl., 263, oc. in Teapa, Mex.

guttatulus TOWNSEND, see *Tabanus*.

notatus BIGOT, see *Silvius quadrivittatus*.

STIBASOMA.

SCHINER, Verh. Zool.-Bot. Ges., xvii, 310, 1867; Novara, 93, 1868.

fulvohirtum WIEDEMANN, Auss. Zw., 1, 155 (*Tabanus*).—Brazil.

SCHINER, Novara, 94.—Colombia.

WALKER, List, v, 222 (*Tabanus compactus*) [O. S.].—Amazon.

OSTEN SACKEN, Biologia, Dipt., 1, 57.—Panama.

pachycephalum BIGOT, Mém. Soc. Zool. France, v, 636.—Mex.

DICHELACERA.

MACQUART, Dipt. Exot., 1, 1, 112, 1838.

abiens WALKER, List, 1, 191.—W. Indies.

cervicornis FABRICIUS, Syst. Antl., 100 (*Tabanus*).—S. A.

WIEDEMANN, Dipt. Exot., 79; Auss. Zw., 1, 157 (*Tabanus*).—S. A.

OSTEN SACKEN, Biologia, Dipt., 1, 58, oc. in Cent. Am. and Panama.

WILLISTON, Biologia, Dipt., 1, 263, oc. in Guerrero, Mex., several places.

fasciata WALKER, is South American; see Osten Sacken, Cat., 55.

pachypalpus BIGOT, Mém. Soc. Zool. France, v, 631.—Mex.

pulchra WILLISTON, Biologia, Dipt., 1, 263, pl. IV, f. 22.—Guerrero, Mex., several places.

scapularis MACQUART, Dipt. Exot., Suppl. II, 15.—Mex.

BELLARDI, Saggio, I, 53, pl. II, f. 12.—Mex.

PITYOCERA.

GIGLIO-TOS, Boll. R. Univ. Torino, XI, No. 224, 1896.

festæ GIGLIO-TOS, loc. cit., page 4.—Daríen. Same, XII, No. 276, 1897.

TABANUS.

LINNÉ, Fauna Suec., 2d ed., 462, 1761.

FABRICIUS, Syst. Antl., 92, 1805.

MEIGEN, Syst. Besch., II, 22, 1820.

MACQUART, Hist. Nat. Dipt., I, 197, 1834.

ZETTERSTEDT, Dipt. Scand., I, 105, 1842.

LOEW, Verh. Zool.-Bot. Ges., 1858, 573; Dipt. Südafrika's, 31.

SCHINER, Fauna Austr., I, 28, 1862.

OSTEN SACKEN, Prodrôme, II, 421, 1875, table of species; Biologia, Dipt., I, 51, brief table of black species.

BRAUER, Zweifl. d. Kaiserl. Mus., I, 15-112, 6 pl.; a modern revision of the European species.

WILLISTON, Kans. Acad. Sci., x, 135, table of species, supplementary to O. S.; Biologia, Dipt. Suppl., 257, table of Mexican spp.

HART, Bull. Ill. State Lab. N. H., IV, 230, keys to part of the species by larvæ and pupæ.

HINE, Tabanidæ of Ohio, 46, 1903, table of Ohio species.

Note.—For the reasons set forth by Brauer and Williston, loc. cit., I have not preserved Osten Sacken's subgeneric or quasi-generic terms *Atylotus* and *Therioplectes*.

abdominalis FABRICIUS, Syst. Antl., 96.—Carolina.

? PALISOT DE BEAUVAIS, Ins., 101, pl. II, f. 4. [O. S., with a doubt.]

OSTEN SACKEN, Prodrôme, II, 434; Suppl., 557; Cat., 227, note 76, on types.—Ill., Ky., Ga.

Ill., common—Hart; N. J.—Smith Cat.; Fla.—Johnson.

actæon OSTEN SACKEN, Prodrôme, II, 443.—Mass., Conn., Wis., Minn., Can.

acutus BIGOT, Mém. Soc. Zool. France, v, 660.—New Orleans.

ægrotus OSTEN SACKEN, West. Dipt., 219.—Cal.

WILLISTON, Kans. Acad. Sci., x, 139, notes; Ore.

affinis KIRBY, Fauna Boreali-Amer., IV, 313.—Canada. Republished in Canad. Ent., XIII, 166.

WALKER, List, v, 183 (*triligatus*) [O. S.].—Arctic Amer.

OSTEN SACKEN, Prodrôme, II, 466.—N. U. S. and Br. Amer.

WILLISTON, Kans. Acad. Sci., x, 137, note.—Col.

N. J.—Smith Cat.; Montreal—Chagnon; Ohio—Hine.

albiscutellatus MACQUART, Dipt. Exot., Suppl. IV, 34, pl. II, f. 9.—Méx.

albonotatus BELLARDI, Saggio, I, 56, pl. II, f. 5.—Mex.

WALKER, List, I, 157 (*oculus*); 158 (*bipartitus*) [O. S.].—Honduras and Colombia.

OSTEN SACKEN, Biologia, Dipt., I, 55.—Brit. Honduras.

WILLISTON, Biologia, Dipt., I, 260, oc. in Teapa, Mex.

- alcis** WILLISTON, Dipt. St. Vincent, 302, pl. x, f. 77.—St. Vincent, W. I.
- alene** TOWNSEND, Trans. Amer. Ent. Soc., xxii, 59.—Jamaica.
- allynii** MARTEN, Canad. Ent., xv, 110.—N. C.
WILLISTON, Kans. Acad. Sci., x, 136, pt. desc.
- alteripennis** WALKER, Trans. Ent. Soc., v, 274.—Mex.
- americanus** FORSTER, Nov. Spec., Cent., i, 100, 1771.
DRURY, Ins., i, pl. XLIV, f. 2 (*plumbeus*).
FABRICIUS, Syst. Ent., 789; Ent. Syst., iv, 365; Syst. Antl., 96 (*ruficornis*).—America.
WIEDEMANN, Dipt. Exot., 62; Auss. Zw., i, 112 (*ruficornis*).—N. A.
PALISOT DE BEAUVAIS, Ins. Dipt., pl. i, f. 2 (*limbatus*).
OSTEN SACKEN, Prodrome, II, 457.—Middle and Southern States.
Ill.—Hart; N. J.—Smith Cat.; Fla.—Johnson.
- angustifrons** TOWNSEND, Trans. Amer. Ent. Soc., xxii, 59.—Jamaica.
- annulatus** SAY, Jour. Acad. Sci. Phil., III, 32; Compl. Works, II, 53.—Mo.
WIEDEMANN, Auss. Zw., i, 185.
OSTEN SACKEN, Prodrome, Suppl., 555.—Ky., Ga., Kans., La.
WILLISTON, Kans. Acad. Sci., x, 142, note.
- astutus** OSTEN SACKEN, Prodrome, II, 471.—N. Y., Conn., White Mts., N. H. Montreal—Chagnon.
- ✓ **atratus** FABRICIUS, Syst. Ent., 789; Ent. Syst., iv, 366; Syst. Antl., 96.—W. I.
PALISOT DE BEAUVAIS, Ins. Dipt., 54, pl. i, f. i (*niger*).
DRURY, Ins., i, pl. XLIV, f. 3 (*americanus*, preoc.).
WIEDEMANN, Dipt. Exot., 63; Auss. Zw., i, 114; loc. cit., 113 (*validus*).—N. A.; Pa.
MACQUART, Dipt. Exot., i, 1, 142.—Mex., Ga.
BELLARDI, Saggio, i, 58.—Mex.
HARRIS, Ins. of New Eng., 3d ed., 602.
WALSH, Proc. Bost. Soc. N. H., ix, 304, desc. of larva, which feeds on snails (undetermined).
RILEY, 2d Mo. Rept., 128, figs., desc. of larval habits, etc., and identification of Walsh's larva.
OSTEN SACKEN, Prodrome, II, 454.—Southern Canada to Mexico, east of the Rocky Mts.
HART, Bull. Ill. State Lab. N. H., iv, 242, desc. and figs. of larva and pupa.
TOWNSEND, Trans. Amer. Ent. Soc., xxii, 60, notes; Jour. N. Y. Ent. Soc., vi, 50, oc. in Texas.
WILLISTON, Biologia, Dipt., i, 259, oc. in Chihuahua, Mex.
HINE, Tabanidæ of Ohio, 45, egg-laying; 48, desc.—Ohio.
- aurantiacus** BELLARDI, Saggio, i, 67, pl. II, f. 9.—Mex.
WILLISTON, Biologia, Dipt., i, 259.—Guadalajara, San Blas, and Orizaba, Mex.
- baal** TOWNSEND, Trans. Amer. Ent. Soc., xxii, 58.—Dixie Landing, Va.
- bicolor** WIEDEMANN, Dipt. Exot., 96; Auss. Zw., i, 188.—N. A.
MACQUART, Dipt. Exot., Suppl. v, 35 (*ruficeps*).—Baltimore.
WALKER, List, i, 171 (*fulvescens*).—Mass.
OSTEN SACKEN, Prodrome, II, 460.—N. Y., Pa., Ill., Quebec.
HINE, Tabanidæ of Ohio, 48.—Ohio.
N. J.—Smith Cat.; Montreal—Chagnon.
- bifenestratus** OSTEN SACKEN, Biologia, Dipt., i, 52, pl. i, f. 9.—Durango, Mex.
- bigoti** BELLARDI, Saggio, i, 58.—Mex.
MACQUART, Dipt. Exot., Suppl. II, 20 (*apicalis*, preoc.). [Bell.]

- SCHINER, Novara, 89, changes Macquart's name to *macquarti*.—Colombia.
- OSTEN SACKEN, Biologia, Dipt., I, 48.—Nicaragua.
- calens* LINNÉ, is unrecognizable; O. S. Cat., 61.
- caliginosus* BELLARDI, Saggio, I, 68, pl. II, f. 10.—Mex.
- WILLISTON, Biologia, Dipt., Suppl., 259, oc. in Vera Cruz and Omealca, Mex.; see *T. ebrius*.
- campechianus* TOWNSEND, Canad. Ent., XXIX, 197.—Campeche, Mex.
- carneus* BELLARDI, Saggio, I, 62.—Mex.
- carolinensis* MACQUART, Dipt. Exot., I, 1, 145.—Carolina.
- OSTEN SACKEN, Prodrôme, II, 473, note; Cat. 226, note 72, on type.
- HINE, Tabanidæ of Ohio, 49.—Ohio, several places.
- cerastes* OSTEN SACKEN, see *hirticulus*.
- chionostigma* OSTEN SACKEN, Biologia, Dipt., I, 54, pl. I, f. 11.—Guatemala.
- WILLISTON, Biologia, Dipt., I, 259.—Teapa, Mex.
- cinctus* FABRICIUS, Ent. Syst., IV, 366; Syst. Antl., 97.—Va.
- MEIGEN, Syst. Besch., II, 42, erroneously supposed to be from Europe.
- WIEDEMANN, Dipt. Exot., 67; Auss. Zw., I, 119.—Va.
- HARRIS, Ins. New Eng., 3d ed., 602, f. 261.
- OSTEN SACKEN, Prodrôme, II, 464.—White Mts., N. H., to Ga.
- WILLISTON, Kans. Acad. Sci., X, 138, notes.
- cingulatus* MACQUART, Dipt. Exot., I, 1, 144.—Phil.
- circumfusus* WIEDEMANN, Auss. Zw., II, 624.—Mex.
- coffeatus* MACQUART, Dipt. Exot. Suppl., II, 23.—Philadelphia.
- ? WIEDEMANN, Auss. Zw., I, 142 (*nigripes*) [O. S., with a doubt].—Savannah.
- OSTEN SACKEN, Prodrôme, II, 441.—Mass. to Fla.
- N. J.—Smith Cat.
- comastes* WILLISTON, Kans. Acad. Sci., X, 137.—Wash.; Mt. Hood, Ore.
- TOWNSEND, Trans. Amer. Ent. Soc., XXII, 58 (Col., Cal.): Proc. Cal. Acad. Sci., IV, 397, notes.—Lower Cal.
- comes* WALKER, List, I, 172 (*inscitus*, preoc.); v. 173, change of name.—Martin Falls, Canada. Unrecognizable—O. S.
- commixtus* WALKER, see *lineola*.
- completus* WALKER, List, I, 185.—St. Thomas, W. I.
- confusus* WALKER, List, I, 147.—Ga. Unrecognizable—O. S.
- conterminus* WALKER, Dipt. Saund., 24.—U. S. Unrecognizable—O. S.
- corone* OSTEN SACKEN, Biologia, Dipt., I, 57.—Guatemala.
- costalis* WIEDEMANN, Auss. Zw., I, 173.—Ky.
- MACQUART, Dipt. Exot., Suppl. v, 34 (*baltimorensis*).—Baltimore.
- WALKER, List, I, 137 (*vicarius*).—Honduras and Mass.
- ? BELLARDI, Saggio, I, 63.—Mex. (Query by O. S.)
- OSTEN SACKEN, Prodrôme, II, 450.—Eastern and Middle States; Fla.
- HART, Bull. Ill. State Lab. N. H., IV, 236, desc. and figs. of larva and pupa.
- HINE, Tabanidæ of Ohio, 50.—Ohio.
- craverii* BELLARDI, Saggio, I, 60.—Mex.
- cribellum* OSTEN SACKEN, Biologia, Dipt., I, 52, pl. I, f. 10.—Presidio, Mex.
- cymatophorus* OSTEN SACKEN, Prodrôme, II, 444.—Ky. Ill.—Hart.
- de filippii* BELLARDI, Saggio, I, 57.—Mex.
- derivatus* WALKER, List, I, 151.—N. A.
- OSTEN SACKEN, Cat., 62, note.
- dodgei* WHITNEY, Canad. Ent., XI, 37.—Glencoe, Nebr.
- WILLISTON, Kans. Acad. Sci., X, 135, pt. desc.
- dorsifer* WALKER, Trans. Ent. Soc., V, 273.—Mex.

- dorsonotatus** MACQUART, Dipt. Exot., Suppl., II, 22.—Carolina. Unrecognizable—O. S.
- duplex** WALKER, List, I, 173 (*imitans*, preoc.); v, 173, change of name.—Martin Falls, Canada. Unrecognizable—O. S.
- ebrius** OSTEN SACKEN, Biologia, Dipt., I, 49, pl. I, f. 8.—Costa Rica, Panama. WILLISTON, Biologia, Dipt., Suppl., 259, thinks may be only a pale var. of *caliginosus* BELL.
- endymion** OSTEN SACKEN, Prodrome, Suppl., 556.—Ga.
- epistates** OSTEN SACKEN, Prodrome, II, 467 (*socius*, preoc.); Suppl., 555, name changed.—Fort Simpson, Northwest Canada. HINE, Tabanidæ of Ohio, 50.—Ohio. N. J.—Smith Cat.
- erebus** OSTEN SACKEN, Biologia, Dipt., I, 50.—Nicaragua, Panama.
- erythræus** BIGOT, Mém. Soc. Zool. France, v, 661.—Mex.
- erythrocephalus** BIGOT, Mém. Soc. Zool. France, v, 668.—Panama.
- exul** OSTEN SACKEN, Prodrome, Suppl., 557.—D. C., Md., Pa., N. J. WIEDEMANN, Auss. Zw., I, 116; Dipt. Exot., 65 (*abdominalis* Fabr.). [O. S.] WILLISTON, Kans. Acad. Sci., x, 138, note. JOHNSON, Ent. News, IX, 126, may be a synonym of *abdominalis*. TOWNSEND, Trans. Amer. Ent. Soc., XXII, 60, notes. Ill.—Hart.
- fenestra** WILLISTON, Kans. Acad. Sci., x, 141.—San Domingo.
- ferrifer** WALKER, Dipt. Saund., 30.—W. I. ("Barbadoes?")
- ferrugineus** PALISOT DE BEAUVAIS, Ins. Recu., pl. III, f. 221.
- filiolus** WILLISTON, Biologia, Dipt., I, 261.—N. Yucatan. ? MACQUART, Dipt. Exot., I, 1, 141 (*rufiventris*, preoc.) [Will., with a ?].—Cuba.
- flavipes** WIEDEMANN, Auss. Zw., I, 137.—Labrador. OSTEN SACKEN, Prodrome, II, 462.—Labrador. BRAUER, Zw. Kaiserl. Mus., I, 37.—East Siberia.
- fratellus** WILLISTON, Kans. Acad. Sci., x, 140.—Wash.
- frenchii** MARTEN, Canad. Ent., xv, 111.—Mont. WILLISTON, Kans. Acad. Sci., x, 136, note.
- frontalis** WALKER, List, I, 172.—Nova Scotia. Unrecognizable—O. S.
- fronto** OSTEN SACKEN, Prodrome, II, 431.—Ga. ? RONDANI, Nuovo Ann. d. Sci. Nat. di Bologna (*cheiloferus*); reproduced by OSTEN SACKEN, Prodrome, II, 472; see also O. S. Cat., note 79, on type.—Carolina. WILLISTON, Kans. Acad. Sci., x, 138.—Fla. St. Augustine and Charlotte Harbor, Fla.—Johnson.
- fulvofrater** WALKER, List, I, 181.—Ill. Unrecognizable—O. S.
- fulvulus** WIEDEMANN, Auss. Zw., I, 153.—"Amerika?" OSTEN SACKEN, Prodrome, II, 451.—Mid. States, Ky. N. J.—Smith Cat.; Ill.—Hart.
- fur** WILLISTON, Kans. Acad. Sci., x, 139 (Fla.); Biologia, Dipt., I, 261, oc. in Misantla, Mex.
- furunculus** WILLISTON, Biologia, Dipt., I, 260.—Guerrero and Jalisco, Mex.
- fuscicrura** BIGOT, Mém. Soc. Zool. France, v, 662.—Mex.
- fuscipalpis** BIGOT, Mém. Soc. Zool. France, v, 681.—Wash.
- fuscopunctatus** MACQUART, Dipt. Exot., Suppl. IV, 34.—Ga. WALKER, List, I, 146 (*imitans*).—Ga. OSTEN SACKEN, Prodrome, II, 432; Suppl. 559; Cat., 228, note 80, on Walker's desc.—Fla., S. C., Ga.

giganteus DeGeer, Ins., vi, 226, pl. xxx, f. 1.

FABRICIUS, Spec. Ins., ii, 455; Ent. Syst., iv, 363; Syst. Antl., 94 (*lineatus*).—N. A.

WIEDEMANN, Dipt. Exot., 63; Auss. Zw., i, 115 (*lineatus*).—N. A.

MACQUART, Dipt. Exot., Suppl. ii, 21 (*bicolor*); v, 32 (*cæsiofasciatus*) [O. S.].—S. C. and Baltimore.

WILLISTON, Kans. Acad. Sci., x, 139, oc. and injury to cattle at Vandalia, Ill.

Fla.—Johnson; N. J.—Smith Cat.

HINE, Tabanidæ of Ohio, 51.—Ohio.

gilanus TOWNSEND, Psyche, 1897, 92.—N. M.

gracilis WIEDEMANN, Auss. Zw., i, 156.—Ga.

OSTEN SACKEN, Cat., note 81, on type.

WILLISTON, Kans. Acad. Sci., x, 140.—Fla.

guttatulus TOWNSEND, Kans. Acad. Sci., xiii, 134 (*Diachlorus*); Psyche, Dec., 1897, 148, refers to *Tabanus*.—Las Cruces, N. M.

hæmagogus WILLISTON, Biologia, Dipt., 261.—N. Yucatan.

hæmatopotoides BIGOT, Mém. Soc. Zool. France, v, 224 (*Diatomineura*?).—Wash. I refer to this genus, from the description.

hirtiocularatus MACQUART, Dipt. Exot., Suppl., v, 33.—Baltimore.

OSTEN SACKEN, Prodrôme, ii, 462 and 473 (*cerastes*); Cat., 227, note 79, on types of Macq.—Ky., Wis. Ill.—Hart.

HINE, Tabanidæ of Ohio, 49 (*cerastes*).—Ohio.

hirtulus BIGOT, Mém. Soc. Zool. France, v, 641.—Wash.

hyalinipennis HINE, Canad. Ent., xxxv, 244.—Oak Creek Canyon, Ariz.

illotus OSTEN SACKEN, Prodrôme, ii, 469.—Canada, Labrador to Yukon R.

incisus WALKER, Dipt. Saund., 26.—Cape Breton. Unrecognizable—O. S.

insuetus OSTEN SACKEN, West. Dipt., 219.—Webber Lake, Cal.

COQUILLETT, Proc. Wash. Acad. Sci., ii, 407, oc. in Alaska.

intensivus TOWNSEND, Psyche, 1897, 93.—West Fork Gila R., N. M.

intermedius WALKER, List, i, 173.—Martin Falls, Canada. Unrecognizable—O. S.

lasiophthalmus MACQUART, Dipt. Exot., i, 1, 143; Suppl., ii, 23 (the latter *punctipennis*).—Carolina and Philadelphia.

WALKER, List, i, 166 (*notabilis*).—N. Y. and Ga.

OSTEN SACKEN, Prodrôme, ii, 465, 473.—Quebec; Maine to Ill.

PETTIT, Bull. 186, Mich. Ex. Sta., oc. at Chatham, N. Mich.

HINE, Tabanidæ of Ohio, 51.—Ohio.

Ill.—Hart; N. J.—Smith Cat.; White Mts.—Slosson; Montreal—Chagnon; Axton, N. Y.—M. & H.

leucomelas WALKER, List, i, 175.—Ga. Unrecognizable—O. S.

leucophorus BIGOT, Mém. Soc. Zool. France, v, 640.—Mt. Hood, Ore.

lineola FABRICIUS, Ent. Syst., iv, 369; Syst. Antl., 102.—N. A.

COQUEBERT, Illust. Iconographica, 112, pl. xxv, f. 6.

WIEDEMANN, Dipt. Exot., 81; Auss. Zw., i, 170.—N. A.

? PALISOT DE BEAUVAIS, Dipt., pl. ii, f. 6 [O. S., with a doubt].

HARRIS, Ins. New Eng., 3d ed., 602, f. 262.

WALKER, List, i, 182 (*simulans*); Dipt. Saund., 27 (*scutellaris*); Trans. Ent. Soc., v, 273 (*compactus*).—Nova Scotia, N. A., and Mexico, respectively; the synonymy is by Osten Sacken, the last two being somewhat doubtful; see Biologia, Dipt., i, 56.

OSTEN SACKEN, Prodrôme, ii, 448.—Canada, U. S., Mex.; common.

- HART, Bull. Ill. State Lab. N. H., iv, 235, figs. and desc. of larva and pupa.
- LUGGER, 2d Rept. Ent. Minn., 1896, 168, mention and good figure.
- WILLISTON, Biologia, Dipt., i, 260, oc. in Guerrero, Mex.; *propinquus* *BELLARDI* may be the same.
- HINE, Tabanidæ of Ohio, 51.—Ohio.
- longiappendiculatus** MACQUART, Dipt. Exot., Suppl., v, 32.—Honduras.
- longus** OSTEN SACKEN, Prodrôme, II, 447; Suppl., 559.—Middle States.
- HINE, Tabanidæ of Ohio, 52.—Ohio.
- Fla.—Johnson.
- lucidulus** WALKER, List, i, 188.—Jamaica.
- lugubris** MACQUART, Dipt. Exot., i, 1, 145.—Carolina.
- PALISOT DE BEAUVAIS, Ins. Dipt., pl. II, f. 5 (*ater*, preoc.). [O. S.]
- WIEDEMANN, Dipt. Exot., 74; Auss. Zw., i, 136 (*ater*; the latter only in part—O. S.).—Savannah.
- OSTEN SACKEN, Prodrôme, II, 456.—S. C.
- luteoflavus** BELLARDI, Saggio, i, 60.—Mex.
- maculifer** BIGOT, Mém. Soc. Zool. France, v, 641.—Wash.
- maculosus** COQUILLETT, Jour. N. Y. Ent. Soc., x, 138.—Chihuahua, Mex.
- maritimus** TOWNSEND, Ent. News, ix, 167.—Padre Id., Texas; may be same as *nanus* Mcq.
- megerlei** WIEDEMANN, Auss. Zw., i, 132, no locality.
- OSTEN SACKEN, Prodrôme, II, 457.—Fla.
- WILLISTON, Kans. Acad. Sci., x, 138, female.—Fla.
- melanocerus** WIEDEMANN, Auss. Zw., i, 122.—Ky.
- ? LINNÉ, Syst. Nat., II, 1000 (*exæstuans*) [O. S., with a doubt].—Surinam.
- OSTEN SACKEN, Prodrôme, II, 440.—Fla. to Ky.
- N. J.—Smith Cat.
- ? WILLISTON, Kans. Acad. Sci., x, 139, notes.
- melanorhinus** BIGOT, Mém. Soc. Zool. France, v, 642.—Wash.
- mexicanus** LINNÉ, Syst. Nat., II, 1000.—Mex.
- DEGEER, Ins., vi, 230, pl. xxx, f. 6 (*olivaceus*) [Fab.].
- FABRICIUS, Spec. Ins., II, 457; Ent. Syst., iv, 367 and 368 (the latter *punctatus* and *inanis*); Syst. Antl., 98.—Cayenne, S. A., and synonymy.
- WIEDEMANN, Dipt. Exot., 76; Auss. Zw., i, 147.—S. A.
- PALISOT DE BEAUVAIS, Ins., 222, pl. III, f. 3 (*sulphureus*).
- MEIGEN, Syst. Besch., II, 62 (*ochroleucus*; by mistake as a European species—Wied.).
- MACQUART, Hist. Nat. Dipt., i, 200 (*flavus*); Dipt. Exot., i, 1, 143.—U. S.
- GUÉRIN and PERCHERON, Genera, Dipt., II (*flavus*).
- WALKER, Newman's Zoology, VIII, App. LXVI (*viridiflavus*; thus quoted "fide Walker," by Bellardi, Saggio, i, 59).
- OSTEN SACKEN, Prodrôme, II, 459.—Fla., S. C., N. J., Mo.
- TOWNSEND, Annals and Mag. Nat. Hist., xx, 21, with table of varieties.—Vera Cruz.
- microcephalus** OSTEN SACKEN, Prodrôme, II, 470.—N. Y., Mass., N. H.
- molestus** SAY, Jour. Acad. Sci. Phil., III, 31; Compl. Works, II, 53.—Mo.
- WIEDEMANN, Auss. Zw., i, 125.
- OSTEN SACKEN, Prodrôme, II, 438.—D. C., Ky., Ga., Mo.
- N. J.—Smith Cat.; Fla., Tick Id.—Johnson.
- mutatus** WALKER, Dipt. Saund., 23.—U. S. Unrecognizable—O. S.
- nanus** MACQUART, Dipt. Exot., Suppl. i, 42.—Texas. Unrecognizable—O. S.

- nebulosus** PALISOT DE BEAUVAIS, Ins. Recu., 222, pl. II, f. 4 and 5.
Unrecognizable—O. S.
- nigrescens** PALISOT DE BEAUVAIS, Dipt., 100, pl. II, f. 2.—N. A.
WIEDEMANN, Auss. Zw., I, 116, translates desc.
OSTEN SACKEN, Prodrôme, II, 453.—Va., N. Y., Mass., N. J., Pa., Md., Tenn., Can.
HART, Bull. Ill. State Lab. N. H., IV, 238, desc. of pupa.—Ill.
- nigrovittatus** MACQUART, Dipt. Exot., Suppl. II, 24.—Nova Scotia.
OSTEN SACKEN, Prodrôme, II, 449.—Mass., R. I., N. Y., N. J.
N. J.—Smith Cat., "The common 'greenhead' of the seashore"; Montreal—Chagnon; Fla., St. Augustine—Johnson.
- nivosus** OSTEN SACKEN, Prodrôme, II, 445.—N. J.
HINE, Tabanidæ of Ohio, 52.—Ohio.
- novæ-scotiæ** MACQUART, Dipt. Exot., Suppl. II, 24.—Nova Scotia.
OSTEN SACKEN, Cat., 61, note on type.
- obesus** BIGOT, Mém. Soc. Zool. France, v, 660.—Mex.
- obliquus** WALKER, Dipt. Saund., 28.—Jamaica.
- ohioensis** HINE, Canad. Ent., 1900, 248 (*pruinus*, preoc.); 1901, 28, change of name; Tabanidæ of Ohio, 53.—Ohio.
- orion** OSTEN SACKEN, Prodrôme, II, 442.—Mass., Conn., N. Y., Quebec.
N. J.—Smith Cat.; Montreal—Chagnon.
- pallidus** PALISOT DE BEAUVAIS, Ins. Recu., 100, pl. III, f. 3.—N. A.
Unrecognizable—O. S.
- palpinus** PALISOT DE BEAUVAIS, Ins. Recu., 221, pl. III, f. 1.—N. A.
Unrecognizable—O. S.
- parallelus** WALKER, List, I, 187.—W. I.
- parvidentatus** MACQUART, Dipt. Exot., I, I, 142.—Antilles.
- parvulus** WILLISTON, Kans. Acad. Sci., x, 141.—San Domingo.
- patulus** WALKER, List, I, 175.—Ga.
- phænops** OSTEN SACKEN, West. Dipt., 217.—Sierra Nevada, Cal.
TOWNSEND, Proc. Cal. Acad. Sci., IV, 597, notes.
- picticornis** BIGOT, Mém. Soc. Zool. France, v, 662.—Hayti.
- politus** JOHNSON, Ent. News, XI, 325.—Merchantville, N. J.
- procyon** OSTEN SACKEN, West. Dipt., 216.—Marin and Sonoma Counties, Cal.
- propinquus** BELLARDI, Saggio, I, 65.—Mex. Preoccupied; Williston thinks this may be the same as *lincola*.
- proximus** WALKER, List, I, 147.—Fla. Unrecognizable—O. S.
- pruinus** BIGOT, Mém. Soc. Zool. France, v, 683.—Mex.
- pruinus** HINE, see *ohioensis*.
- psammophilus** OSTEN SACKEN, Prodrôme, II, 445.—Ft. Capron, Fla.
Lake Worth, Fla.—Johnson.
- pumilioides** WILLISTON, Biologia, Dipt., I, 260, pl. IV, f. 21.—Guerrero, Mex.
- pumilus** MACQUART, Dipt. Exot., I, I, 146.—Carolina.
OSTEN SACKEN, Prodrôme, II, 448.—Md., N. Y., Fla.
HINE, Tabanidæ of Ohio, 53.—Ohio.
N. J.—Smith Cat.; Fla., several places—Johnson.
- punctifer** OSTEN SACKEN, Prodrôme, II, 453; West. Dipt., 220.—Utah, Cal., Col., and Sonora, Mex.
WILLISTON, Kans. Acad. Sci., x, 139, notes.
TOWNSEND, Trans. Amer. Ent. Soc., XXII, 60, oc. in N. M. and Lower Cal. Idaho and Wash.—J. M. A.
- purus** WALKER, Trans. Ent. Soc., v, 274.—Mex.
- pygmæus** WILLISTON, Kans. Acad. Sci., x, 141.—Fla.

- quadripunctatus** FABRICIUS, Syst. Antl., 99.—S. A.
 WIEDEMANN, Dipt. Exot., 77; Auss. Zw., 1, 151.—Brazil.
 BELLARDI, Saggio, 1, 67, pl. II, f. 8 (*nigropunctatus*).—Mex. [O.S.]
 SCHINER, Novara, 86, additional desc.—S. A.
 OSTEN SACKEN, Biologia, Dipt., 1, 48.—Mex., Guatemala, Costa Rica.
 WILLISTON, Biologia, Dipt., 1, 259, oc. in Guerrero and Guanajuato, Mex.
- quinquevittatus** WIEDEMANN, Dipt. Exot., 84; Auss. Zw., 1, 173.—Mex.
 BELLARDI, Saggio, 1, 65.—Mex.
 OSTEN SACKEN, Cat., 228, note 88.
- recedens** WALKER, List, 1, 147.—Fla.
 OSTEN SACKEN, Prodrome, II, 433 (*catenatus* Walk.)—Conn., N. Y., Pa., Md., S. C. Catalogue, 227, note 77, explains the mistake about Walker's types, and calls the species *catenatus* O. S.
 WILLISTON, Kans. Acad. Sci., x, 138, prefers *recedens*.
 N. J.—Smith Cat.
- reinwardtii** WIEDEMANN, Auss. Zw., 1, 130.—Pa.
 WALKER, Dipt. Saund., 25, pl. II, f. 1 (*erythrotelus*).—Bolton, U. S. [O. S.]
 OSTEN SACKEN, Prodrome, II, 461.—Canada; Vt. to Ia.
 TOWNSEND, Psyche, 1897, 92, note.
 LUGGER, 2d Rept. Ent. Minn., 1896, 168, mention and good figure.—Minn.
 HINE, Tabanidae of Ohio, 54.—Ohio.
 N. J.—Smith Cat.; Montreal—Chagnon; Ill.—Hart.
- rhombicus** OSTEN SACKEN, Prodrome, II, 472; West. Dipt., 218, notes.—Col.
 WILLISTON, Kans. Acad. Sci., x, 137, notes.—Col.
 N. M.—Coq.; Beulah, N. M.—Skinner.
- rubescens** BELLARDI, Saggio, App., 15.—Mex.
- rufiventris** MACQUART, Dipt. Exot., 1, 1, 141.—Cuba.
 WALKER, List, 1, 180, oc. in Jamaica.
 BIGOT, in Sagra's Cuba, 798, oc.
 See *filiohis*.
- rufofrater** WALKER, Dipt. Saund., 26.—Ga. Unrecognizable—O. S.
- rufus** PALISOT DE BEAUVAIS, Dipt., 100, pl. II, f. 1.
 WIEDEMANN, Auss. Zw., 1, 117, transl. desc.; 119 (*fumipennis*). [O. S.]
 OSTEN SACKEN, Prodrome, II, 456; Suppl., 559.—S. C., Ga., Fla.
 Fla., several places—Johnson.
- sagax** OSTEN SACKEN, Prodrome, II, 452.—Ill., Minn.
 N. J.—Smith Cat.
- sallei** BELLARDI, Saggio, 1, 61, pl. II, f. 7.—Mex.
- scitus** WALKER, List, 1, 181.—Ga. Unrecognizable—O. S.
- septentrionalis** LOEW, Verh. Zool.-Bot. Ges., 1858, 593.—Labrador.
 OSTEN SACKEN, Prodrome, II, 467.—Labrador.
 COQUILLETT, Proc. Wash. Acad. Sci., II, 406, oc. in Alaska.
 Montreal—Chagnon.
- sequax** WILLISTON, Kans. Acad. Sci., x, 137.—Mt. Hood, Ore.
- sexvittatus** BIGOT, Mém. Soc. Zool. France, v, 682.—Mex.
- sodalis** WILLISTON, Kans. Acad. Sci., x, 139.—U. S., no locality.
 N. J.—Smith Cat.
- sonomensis** OSTEN SACKEN, West. Dipt., 216; ~~Marin~~ and Sonoma counties, Cal.
 COQUILLETT, Proc. Wash. Acad. Sci., II, 407, oc. in Alaska.
- sparus** WHITNEY, Canad. Ent., XI, 38.—Milford, N. H.
 WILLISTON, Kans. Acad. Sci., x, 140.—Conn., Mass.
 N. J.—Smith Cat.; Inverness, Fla.—Johnson.

stigma FABRICIUS, Syst. Antl., 104.—W. I.

WIEDEMANN, Dipt. Exot., 92; Auss. Zw., 1, 180.—S. A. and St. Thomas.

stygius SAY, Jour. Acad. Sci. Phil., III, 33; Compl. Works, II, 54.—Ark.

WIEDEMANN, Auss. Zw., 1, 131.

OSTEN SACKEN, Prodrôme, II, 454.—Conn. to Ia.; Fla.

HART, Bull. Ill. State Lab. N. H., IV, 239, desc. and figs. of larva and pupa;
oc. in Ill.

HINE, Tabanidæ of Ohio, 4, 5, egg-laying; 54, desc.—Ohio.

Georgiana, Fla.—Johnson; N. J.—Smith Cat.

subruber BELLARDI, Saggio, I, 55, change of name; Mex.

MACQUART, Dipt. Exot., Suppl. I, 42 (*ruber*, preoc.).—Mex.

WILLISTON, Biologia, Dipt., 1, 260, oc. in Teapa, Amula, and Atoyac, Mex

subs similis BELLARDI, Saggio, I, 66.—Mex.

subtilis BELLARDI, Saggio, App., 14, f. 9.—Mex.

sulcifrons MACQUART, Dipt. Exot., Suppl., v, 33.—Baltimore.

OSTEN SACKEN, Prodrôme, II, 436 (*tectus*) [O. S.].—Md., Pa.

WILLISTON, Kans. Acad. Sci., x, 138, notes; oc. in La.

RILEY and HOWARD, Ins. Life, VI, 34, extr. cor. on habits.—Mo. (*tectus*).

HINE, Ohio Nat., II, 168, oc. in O.; note on male.

HINE, Tabanidæ of Ohio, 9, anatomy, with plate; 54, desc.—Ohio.

N. J.—Smith Cat.; Ill.—Hart.

sumichrasti BELLARDI, Saggio, I, 56.—Mex.

superjumentarius WHITNEY, Canad. Ent., XI, 37.—Milford, N. H.

HINE, Tabanidæ of Ohio, 55, redesc.—Akron and Cincinnati, Ohio.

susurrus MARTEN, Canad. Ent., xv, 111.—Mont.

tener OSTEN SACKEN, Prodrôme, II, 440.—Ga., Fla.

? MACQUART, Dipt. Exot., Suppl., II, 22.—Carolina (*unicolor*; the type is
unrecognizable, and the name preoccupied—O. S.).

Ormond and Indian River, Fla.—Johnson.

tennessensis BIGOT, Mém. Soc. Zool. France, v, 660.—Tenn.

tetricus MARTEN, Canad. Ent., xv, 111.—Mont.

tetropsis BIGOT, Mém. Soc. Zool. France, v, 681.—Ga.

thoracicus HINE, Canad. Ent., 1900, 248.—Oswego, N. Y.

tinctus WALKER, Dipt. Saund., 29.—"St. Thomas?" West Indies—O. S.

trijunctus WALKER, List, v, 182.—Fla.

OSTEN SACKEN, Prodrôme, II, 432.—Ft. Capron, Fla.

trilineatus LATREILLE, in Humboldt et Bonpland's Recueil d'obs., Fasc. x, 116,
pl. XI, f. 6.—Brazil.

WIEDEMANN, Dipt. Exot., 84; Auss. Zw., 1, 168.—Brazil.

BELLARDI, Saggio, I, 63.—Mex.

trimaculatus PALISOT DE BEAUVAIS, Dipt., 56, pl. I, f. 5.—S. A.

WIEDEMANN, Auss. Zw., 1, 137 (transl. desc.); 132 (his own description,
perhaps not of the same species).

MACQUART, Hist. Nat. Dipt., 1, 200 (*quinquelineatus*); Dipt. Exot., I, 1,
142.—Ga., Carolina.

OSTEN SACKEN, Prodrôme, II, 439.—Delaware to Ill. and Miss.

HINE, Tabanidæ of Ohio, 55.

N. J.—Smith Cat.; Ill.—Hart.

trispilus WIEDEMANN, Auss. Zw., 1, 150.—Ky.

OSTEN SACKEN, Prodrôme, II, 464.—White Mts., N. H.; Mass., Conn., N.
Y., Ill.

N. J.—Smith Cat.; Montreal—Chagnon.

truquii BELLARDI, Saggio, I, 64, pl. II, f. 6.—Mex.

- turbidus** WIEDEMANN, Auss. Zw., I, 124.—Ky.
 ? MACQUART, Dipt. Exot., I, I, 147 (*fusconervosus*).—No locality. [O. S., with a doubt.]
 WALKER, List, I, 148 (*catenatus*; Osten Sacken found that one of the two type specimens belongs here, and the other to *giganteus*;—Cat. 227, note 77).
 OSTEN SACKEN, Prodrôme, II, 430; Cat., 78, note 84, on type.—Ga., Ky., Ill.
 WILLISTON, Kans. Acad. Sci., x, 138, notes; Ala.
variegatus FABRICIUS, Syst. Antl., 95.—N. A.
 WIEDEMANN, Dipt. Exot., 67; Auss. Zw., I, 120.—N. A.
 OSTEN SACKEN, Prodrôme, II, 437; Cat., 228, note 86, on type.—D. C., Md.
 HINE, Tabanidæ of Ohio, 56.—Ohio.
venenatus OSTEN SACKEN, Biologia, Dipt., I, 54.—Guatemala, Panama.
venustus OSTEN SACKEN, Prodrôme, II, 444.—Dallas, Tex.
 HINE, Tabanidæ of Ohio, 56.—Ohio.
 Ill.—Hart; Kans.—J. M. A.
vicinus MACQUART, Dipt. Exot., I, I, 143.—Carolina.
villosulus BIGOT, Mém. Soc. Zool. France, v, 684.—Cal.
vivax OSTEN SACKEN, Prodrôme, II, 446.—N. Y., Me.
 ? FABRICIUS, Syst. Antl., 99 (*marginalis*). [O. S., with a doubt.]
 WIEDEMANN, Auss. Zw., I, 166, redesc. of Fabricius's type, and additions.—N. A.
 OSTEN SACKEN, Cat., 228, note 87—types of Fabricius and Wiedemann cannot be found.
 HINE, Tabanidæ of Ohio, 56; Ohio Nat., IV, Nov., 1903, life history.—Ohio.
wiedemannii OSTEN SACKEN, Prodrôme, II, 455; Suppl., 559.—Fla., Ga., Ky.
 WIEDEMANN, Auss. Zw., I, 136 (*ater* Pal. Beauv.).—Savannah.
 Fla., several places—Johnson.
yucatanus TOWNSEND, Canad. Ent., XXIX, 198.—Yucatan.
zonalis KIRBY, Fauna Bor.-Amer., IV, 314.—Canada. Republished in Canad. Ent., XIII, 167.
 WALKER, List, I, 156 (*tarandi*).—Martin Falls, Can.; Newfoundland.
 MACQUART, Dipt. Exot., Suppl. IV, 35 (*terra-novæ*).—Newfoundland.
 BELLARDI, Saggio, I, 61 (*flavocinctus*, but probably not from Mex.;—O. S.).
 OSTEN SACKEN, Prodrôme, II, 463.—Newfoundland to N. W. Brit. Amer.; Me., Wash.
 TOWNSEND, Trans. Amer. Ent. Soc., XXII, 58, notes.
 Axton, N. Y.—M. & H.

ACANTHOMERIDÆ.

See an important discussion of this family by Osten Sacken, Biologia, Dipt., I, 63-66. Also Bigot, Annales Soc. ent. de France, 1882, 452, synopsis of genera and species.

ACANTHOMERA.

- WIEDEMANN, Dipt. Exot., 60, 1821; Auss. Zw., I, 107, 1828.
 THUNBERG, Acta Gothob., III, 1819 (*Pantophthalmus*).
 MACQUART, Hist. Nat. Dipt., I, 217, 1834.
 BIGOT, Bull. Soc. ent. de France, 1880, no. 1, p. 5; Annales, 1882, 455 (*Megalemyia*, in part). [O. S.]

argyropasta BIGOT, Bull. Soc. ent. de France, 1880, no. 1, p. 5; Annales, 1882, 455 (*Megalemyia*).—Panama.

OSTEN SACKEN, Biologia, Dipt. 1, 64, says this is the male of *Acanthomera seticornis*, but as Bigot, in Bull. Soc. ent. France, 1886, CLXVIII, still maintains both the species and the genus *Megalemyia*, I allow the former to stand.

bellardii BIGOT, described by Bellardi, Saggio, App., 16, f. 11, from Mexico, seems never to have been published by Bigot.

bigoti BELLARDI, Saggio, App., 16, f. 10.—Oaxaca, Mex.

championi OSTEN SACKEN, Biologia, Dipt., 1, 67, pl. III, f. 16.—Nicaragua and Panama.

BELLARDI, Saggio, 1, 76 (*picta* WIEDEMANN).—Mexico. [O. S.]

TOWNSEND, Proc. Cal. Acad. Sci., IV, 595.—Costa Rica.

crassipalpis MACQUART, Dipt. Exot., Suppl. II, 27, pl. 1, f. 3.—Guatemala.

picta WIEDEMANN, is not known from North America; for Bellardi's reference see *A. championi*.

rubriventris BIGOT, Bull. Soc. ent. de France, no. 1, p. 5; Annales, 1882, 456.—Guatemala.

seticornis WIEDEMANN, Auss. Zw., 1, 108.—Brazil.

MACQUART, Dipt. Exot., 1, 1, 168, pl. XX, f. 1; Suppl. II, 27.—Brazil; Guatemala; may be the male of *crassipalpis*. See also *argyropasta*.

tabaninus THUNBERG, Acta Soc. Gothob., III, 1819, III, pl. VII, f. 2 (*Pantophthalmus*).—West Indies.

WIEDEMANN, Auss. Zw., 1, 110, quotes orig. desc.

RHAPHIORHYNCHUS.

WIEDEMANN, Dipt. Exot., 59, 1821; Auss. Zw., 1, 105, 1828.

planiventris WIEDEMANN, Dipt. Exot., 60; Auss. Zw., 1, 106, pl. 1, f. 4; II, 622.—Surinam, Guiana.

MACQUART, Dipt. Exot., 1, 1, 170, pl. XX, f. 3; Suppl. II, 27, pl. 1, f. 3 (*Ac. crassipalpis*, in the latter place).—Brazil and Guatemala. [O. S.]

BELLARDI, Saggio, App., 16, f. 10 (*Ac. bigoti*).—Oaxaca, Mex. [O. S.]

BIGOT, Annales, 1882, 458 (*crassipalpis* MACQ.).

OSTEN SACKEN, Biologia, Dipt., 1, 66.—Panama.

Note to the Family Acanthomeridae.—There exists no reason known to me for maintaining the name *Acanthomera* against the apparently prior name *Pantophthalmus*, the adoption of which would involve a change of the family name to correspond. But I have not access to Thunberg's work, and it seems a very good rule to give the benefit of the doubt to current names.

LEPTIDÆ.

(Inclusive of Xylophagidae and Cœnomyidae.)

BIGOT, Bull. Soc. Zool. France, XII, 4, 1887, table of genera of the world, restricted sense.

JOHANNSEN, Bull. 68, N. Y. State Mus., fig. and desc. of undet. larva.

CHIROMYZA.

WIEDEMANN, Dipt. Exot., 114, 1821; Auss. Zw., 1, 237, 1828.

SCHINER, Novara, 76, 1868.

BRAUER, Zweiflüger d. Kaiserl. Mus., II, 15, 1882.

OSTEN SACKEN, Berl. Ent. Zeitsch., XXV, 296, 1883; Biologia, Dipt., 1, 60, 1886.

fuscana WIEDEMANN, Dipt. Exot., 115; Auss. Zw., I, 238.—Brazil.

OSTEN SACKEN, Biologia, Dipt., I, 60, oc. in Guatemala and Costa Rica.

CÆNOMYIA.

LATREILLE, Précis. d. Caract. gén. Ins., 1797; Hist. Nat. Crust. et Ins., III, 439, 1802; XIV, 326, 1804.

FABRICIUS, Syst. Antl., 75, 1805, and earlier writings (*Sicus*, preoc.).

FALLÉN, Xylophagei, 1817 (*Sicus* F.).

MEIGEN, Syst. Besch., II, 18, 1820.

MACQUART, Hist. Nat. Dipt., I, 225, 1834.

ZETTERSTEDT, Dipt. Scand., I, 130, 1842 (*Sicus* F.).

SCHINER, Fauna Austr., I, 27, 1862.

OSTEN SACKEN, Cat., 223, note on *Sicus*.

cinereibarbis BIGOT, Annales, 1879, 194.—Md.

WILLISTON, Canad. Ent., XVII, 122.—Conn.

ferruginea SCOPOLI, Ent. Carniolica, 913, 1763 (*Musca*).—Europe.

FABRICIUS, Spec. Ins., II, 459 (*Tabanus bidentatus* and *bispinosus*); Ent. Syst., IV, 263 (*Stratiomys errans*); 264 (*Stratiomys crucis*, from West Indies); Suppl., 555 (*Sicus ferrugineus* and *bicolor*); Syst. Antl., 75, 76 (*Sicus testaceus*, *ferrugineus*, *bicolor*, *errans*, and *crucis*).—South America, West Indies, Europe.

PANZER, Fauna Insect. Germanicæ, IX, 20 (*Stratiomys macroleon*); XII, 22 (*Stratiomys unguiculata*); LVIII, 17 (*S. errans*).

SCHRANK, Fauna Boica, III, 2373-75 (*Strat. grandis*, *major*, and *palatina*).

MEIGEN, Klassifikation, 122, 1804 (*Sicus unicolor*, *bicolor* and *aureus*); Syst. Besch., II, 19, pl. XII, f. 25, syn.

FALLÉN, Xylophagei, 12 (*Sicus*).

SAY, Long's Exped., App., 339; Compl. Works, I, 42, pl. xx; Amer. Entomol., pl. xx (*pallida*).—Upper Mississippi Valley.

WIEDEMANN, Auss. Zw., I, 86 (id.).

HARRIS, Ins. New England, 407 (id.).

MACQUART, Hist. Nat. Dipt., I, 225; Dipt. Exot., Suppl. v, 38 (the latter as *pallida*).

SCHINER, Fauna Austr., I, 27.

LOEW, Silliman's Jour., XXXVII, 317, syn. of *pallida*.

HART, Bull. Ill. State Lab. Nat. Hist., IV, 267, desc. of pupa-skin, and ref. to Beling, Verh. Zool.-Bot. Ges., 1880, 343, for desc. of larva.

Atlantic States—O. S.; Montreal—Chagnon; Minn. and Pa.—J. M. A.

ARTHROPEAS.

LOEW, Stett. Ent. Zeit., 1850, 302.

BRAUER, Zweifl. d. Kaiserl. Mus., II, 17, 1882; Offenes Schreiben, 6.

OSTEN SACKEN, Berl. Ent. Zeitsch., XXVI, 369, 1882.

americana LOEW, Cent., I, 16.—N. Wis. Mass.—O. S. See *Xylomyia fasciata*.

leptis OSTEN SACKEN, Cat., 1878, note 48; Berl. Ent. Zeitsch., 1882, 365, discusses generic relations—should form a new genus.—White Mts.

White Mts., N. H.—Slosson (*Arthroceras*).

RHACHICERUS.

HALIDAY, in Walker's List, v, 103, 1854.

BRAUER, Zweifl. d. Kaiserl. Mus., II, 17, 1882.

bellus OSTEN SACKEN, Biologia, Dipt., I, 62.—Panama.

fulvicollis HALIDAY, in Walker's List, I, 124; V, 104.—Ga.

Tick Id., Fla.—Johnson.

honestus OSTEN SACKEN, West. Dipt., 211.—Cal.

nigripalpus LOEW, Berl. Ent. Zeit., 1874, 379.—Mex.

nitidus JOHNSON, Ent. News, 1903, 22.—Overbrook, Pa. Early stages briefly mentioned: larvæ in a decayed log.

obscuripennis LOEW, Cent., III, 6.—Ill. Mich.—O. S.

varipes LOEW, Cent., III, 7.—Cuba.

XYLOPHAGUS.

MEIGEN, Illig. Mag., II, 266, 1803; Syst. Besch., II, 7, 1820.

ZETTERSTEDT, Dipt. Scand., I, 127, 1842.

SCHINER, Fauna Austr., I, 26, 1862.

BRAUER, Zweifl. d. Kaiserl. Mus., II, 73, 1882.

abdominalis LOEW, Cent., IX, 64.—Texas.

JOHNSON, Ent. News, IX, 158, records rearing larvæ found under bark of decaying pine at Riverton, N. J.; XIV, 22, desc. of larva and pupa, with figures.

decorus WILLISTON, Canad. Ent., XVII, 121.—Wash.

fasciatus WALKER, List, I, 128.—Martin Falls, Canada.

Montreal—Chagnon.

gracilis WILLISTON, Canad. Ent., XVII, 121.—Wash., Ore.

longicornis LOEW, Cent., IX, 62.—Mass.

lugens LOEW, Cent., III, 8.—Ill.

JOHNSON, Ent. News, XIV, 23, bred from decayed oak and chestnut trees at Riverton, N. J.; notes on larvæ and pupæ.

Pa. and N. H.—O. S. Cat.

persequus WALKER, Dipt. Saund., I.—N. A.

N. J.—Smith Cat.; Axton, N. Y.—M. & H. ("=*rufipes* Lw.?").

reflectens WALKER, List, I, 129.—N. Y.

rufipes LOEW, Cent., IX, 63.—Mass.

Canada—O. S. Cat.; Montreal—Chagnon; White Mts., N. H.—Slosson.

See *persequus*.

triangularis SAY, Jour. Acad. Sci. Phil., III, 30; Compl. Works, II, 52.—Mo.

WIEDEMANN, Auss. Zw., I, 85.

MACQUART, Dipt. Exot., I, 171, suspects this to be a *Subula*.

XYLOMYIA.

RONDANI, Dipt. Ital. Prod., IV, 11, 1861, change of name.

MEIGEN, Syst. Besch., II, 15, 1820 (*Subula*, preoc.).

SCHINER, Fauna Austr., I, 25, 1862 (*Subula*).

BRAUER, Zweifl. d. Kaiserl. Mus., II, 17, 1882 (*Subula*).

OSTEN SACKEN, Biologia, Dipt., I, 22 (*Subula*).

WILLISTON, Biologia, Dipt., I, 230.

BIGOT, Annales, 1879, 187 (*Macroceromys*). [O. S.]

americana WIEDEMANN, Dipt. Exot., 51; Auss. Zw., I, 84 (*Xylophagus*).—N. A.

WILLISTON, Biologia, Dipt., I, 230, oc. in Mexico, several places.

JOHNSON, Ent. News, XIV, 24.—Ill. and Pa.

aterrima JOHNSON, Ent. News, XIV, 24.—N. Ill. and Franconia, N. H.

elongata OSTEN SACKEN, Biologia, Dipt., I, 22 (*Subula*).—Guatemala.

fasciata SAY, Jour. Acad. Sci. Phil., VI, 155; Compl. Works, II, 353 (*Xylophagus*).—Ind. Perhaps same as *Arthropeas americana*—O. S.

fulviventris BIGOT, Annales, 1879, 187 (*Macroceromys*).—Mex.

pallipes LOEW, Cent., III, 9 (*Subula*).—Ill., Wis.

WILLISTON, Canad. Ent., XVII, 122, oc. in Mont. and S. Cal. (id.).

TOWNSEND, Ent. News, IV, 163, puparium, habits, etc. (id.).

BAKER, Ent. News, VI, 173, note on habits—larvæ in numbers under bark of fallen cottonwood tree.—Trinidad, Col. (id.).

Atlantic States—O. S.; N. J.—Smith Cat.

parens WILLISTON, Canad. Ent., XVII, 122 (*Subula*).—Wash.

tenthredinoides VAN DER WULP, Tijdsch. v. Ent., X, 132, pl. III, f. 5 (*Subula*).—Wis.

JOHNSON, Ent. News, XIV, 24.—Ill. and Pa.

BOLBOMYIA.

LOEW, Bernstein und Bernstein-fauna, 39, 1850, transl. in Silliman's Jour., XXXVII, 313, and O. S. Cat., 223, note 46.

nana LOEW, Cent., II, 5.—D. C.

GLUTOPS.

BURGESS, Proc. Bost. Soc. Nat. Hist., 1878, 320.

BRAUER, Zweifl. d. Kaiserl. Mus., II, 17, 1882.

singularis BURGESS, op. cit., figs.—Springfield, Mass.

ARTHROCERAS.

WILLISTON, Ent. Americana, II, 107, 1886.

leptis, of Mrs. Slosson's List, see *Arthropeas*.

pollinosum WILLISTON, Ent. Americana, II, 108.—Wash., Col.

DIALYSIS.

WALKER, Dipt. Saundersiana, 4, 1856.

OSTEN SACKEN, Cat., 43, notes, 1878.

WILLISTON, Entomologica Americana, II, 106, 1886; Kans. Univ. Quart., III, 263, 1895, full discussion.

BERGROTH, Wien. Ent. Zeit., VIII, 296, 1889, tables of N. A. spp., but not in Williston's sense.

TOWNSEND, Proc. Ent. Soc. Wash., II, 117, 1891.

aldrichi WILLISTON, Kans. Univ. Quart., III, 165.—Craig's Mt., Idaho (not Craig Mts.).

dispar BIGOT, Annales, 1879, 197.—Cal.

OSTEN SACKEN, Berl. Ent. Zeitschr., XXVII, 295, note on type; refers to *Triptotricha*.

elongata SAY, Jour. Acad. Sci. Phil., III, 41; Compl. Works, II, 58 (*Stygia*).—Pa.

WIEDEMANN, Auss. Zw., I, 315 (*Anthrax*); 561 (*Lomatia*).

WALKER, List, I, 128 (*Xylophagus americanus* WIED., with a doubt); Dipt. Saund., 4, syn. (*Dialysis dissimilis*).—N. A. [Will.]

OSTEN SACKEN, Berl. Ent. Zeitsch., XXVII, 295 (*Triptotricha dissimilis*).

JOHNSON, Ent. News, VIII, 117, variation in venation.

N. J.—Smith Cat.; Montreal—Chagnon.

fasciventris LOEW, Berl. Ent. Zeitschr., 1874, 380 (*Triptotricha*).—Pa.

JOHNSON, Ent. News, VIII, 118.—N. C.

rufithorax SAY, Jour. Acad. Sci. Phil., III, 36; Compl Works, II, 56 (*Leptis*).—Pa.

WIEDEMANN, Auss. Zw., I, 223 (id.).

JOHNSON, Ent. News, VIII, 118, variation in venation. N. J.—Smith Cat.

TRIPTOTRICA.

LOEW, Cent., X, 15, 1872; Berl. Ent. Zeitschr., 1874, 381, note.

OSTEN SACKEN, Berl. Ent. Zeitschr., 1883, 295.

WILLISTON, Kans. Univ. Quart., III, 263, 1895.

discolor LOEW, Berl. Ent. Zeitschr., 1874, 379.—San Francisco, Cal.

disparilis BERGROTH, Wien. Ent. Zeit., VIII, 296 (*Dialysis*).—Vancouver Id.

lauta LOEW, Cent., X, 15; Berl. Ent. Zeitschr., 1874, 382.—Cal.

PHENEUS.

WALKER, Dipt. Saund., 155, 1856.

WILLISTON, Kans. Univ. Quart., IV, 108, 1895 (*Arthrostylum*); Biologia, Dipt., I, 264, 1901.

tibialis WALKER, Dipt. Saund., 156, pl. IV, f. 3.—Jamaica.

OSTEN SACKEN, Cat., 63, note.

WILLISTON, Kans. Univ. Quart., IV, 108 (*Arthrostylum fascipennis*); Biologia, Dipt., I, 264, syn., etc.—Guerrero, Mex.

LEPTIS.

FABRICIUS, Syst. Antl., 69, 1805.

MEIGEN, Syst. Besch., II, 65, 1820.

MACQUART, Hist. Nat. Dipt., I, 425, 1834.

SCHINER, Fauna Austr., I, 171, 1862.

albibarbis BIGOT, Bull. Soc. Zool. France, XII, 18.—Wash.

albicornis SAY, Jour. Acad. Sci. Phil., III, 38; Amer. Entomology, pl. XIII; Compl. Works, I, 27.—No locality.

WIEDEMANN, Auss. Zw., I, 223.—Pa.

S. C.—O. S.; St. Augustine, Fla.—Johnson.

bitæniata BELLARDI, Saggio, App., 26, f. 14.—Mex.

boscii MACQUART, Dipt. Exot., II, 1, 30.—Carolina.

Province of Quebec—Fyles.

? **cinerea** BELLARDI, Saggio, II, 95.—Mex.

OSTEN SACKEN, Cat. 229, note 94;—not a *Leptis*, type nearly destroyed.

costata LOEW, Cent., II, 4.—Cal.

OSTEN SACKEN, West. Dipt., 223, oc. in Marin and Sonoma Cos., Cal.

dimidiata LOEW, Cent., III, 17.—Sitka, Alaska.

COQUILLETT, Proc. Wash. Acad. Sci., II, 406, oc. at Juneau, Alaska.

hirta LOEW, Cent., I, 21.—Ill. N. J.—Smith Cat.; Quebec—Wulp; White Mts., N. H.—Slosson; Montreal—Chagnon.

hoodiana BIGOT, Bull. Soc. Zool. France, XII, 19.—Mt. Hood, Ore.

incisa LOEW, Cent., X, 16.—Cal.

OSTEN SACKEN, West. Dipt., 223.—Marin Co., Cal.

White Mts., N. H.—Slosson.

intermedia WALKER, List, I, 212 (*Rhagio*).—Martin Falls, Canada.

limbipennis BIGOT, Bull. Soc. Zool. France, XII, 10 (*Leptipalpus*).—Rocky Mts.

maculifer BIGOT, Bull. Soc. Zool. France, XII, 17.—Wash.

- ✓ **mystacea** MACQUART, Dipt. Exot., II, 1, 30, pl. III *bis*, f. 2.—N. A.
? WALKER, List, I, 212; IV, 1153.—Nova Scotia; Trenton Falls, N. Y.;
ident. doubtful.
N. J.—Smith Cat.; Montreal—Chagnon; White Mts., N. H.—Slosson;
Axtou, N. Y.—M. & H.
- obscuripennis** BIGOT, Bull. Soc. Zool. France, XII, 11 (*Leptipalpus*).—Rocky
Mts.
- ochracea** LOEW, Cent., II, 3.—N. Y. N. J.—Smith Cat.
- plumbea** SAY, Jour. Acad. Sci. Phil., III, 39; Compl. Works, II, 56.—Pa.
WIEDEMANN, AUSS. ZW., I, 228.
VAN DER WULP, Tijdschr. v. Ent., X, 142, pl. IV, f. 5 (*griseola*).—Wis.
[Lw.] N. J.—Smith Cat.
- polytæniata** BELLARDI, Saggio, App., 27.—Mex.
- pruinosa** BIGOT, Bull. Soc. Zool. France, XII, 19.—Mt. Hood, Ore.
COQUILLETT, Proc. Wash. Acad. Sci., II, 406, oc. on Popoff Id., Alaska.
- ✓ **punctipennis** SAY, Jour. Acad. Sci. Phil., III, 34; Compl. Works, II, 55.—Pa.
WALKER, List, I, 219 (*Atherix filia*; "either *pictipennis* or *plumbea*"—
O. S.).—N. Y. and Trenton, N. J.
WIEDEMANN, AUSS. ZW., I, 227.
- scapularis** LOEW, Cent., I, 22.—Ill. N. J., D. C.—O. S.
- stigmatias** BIGOT, Bull. Soc. Zool. France, XII, 10 (*Leptipalpus*).—Cuba.
- terminalis** LOEW, Cent., I, 20.—N. Y.
- vertebrata** SAY, Jour. Acad. Sci. Phil., III, 38; Amer. Entomology, pl. XIII;
Compl. Works, I, 27.—Fla. Montreal—Chagnon; Province of Quebec
—Fyles.
- vertebrata** BIGOT, Bull. Soc. Zool. France, XII, 12 (*Leptipalpus*).—Havti.

CHRYSOPIA.

- MACQUART, Dipt. du Nord de la France, 403, 1827; Hist. Nat. Dipt., I, 429,
1834.
- SCHINER, Fauna Austr., I, 175, 1862.
- anthracina** BIGOT, Bull. Soc. Zool. France, XII, 9.—Cal.
- aterrima** WILLISTON, Biologia, Dipt., I, 264.—Guerrero, Mex.
- atra** WILLISTON, Dipt. St. Vincent, 304, pl. X, f. 78 *bis*.—St. Vincent, W. I.
- apicalis** VAN DER WULP, Tijdschr. v. Ent. XXV, 119.—Guadeloupe.
- basilaris** SAY, Jour. Acad. Sci. Phil., III, 36; Compl. Works, II, 55 (*Leptis*).—
Pa.
WIEDEMANN, AUSS. ZW., I, 228.
? WILLISTON, Biologia, Dipt., I, 265, oc. in Vera Cruz, with a doubt.
N. J.—Smith Cat.; St. Augustine and Charlotte Harbor, Fla.—Johnson.
- basalis** WALKER, Trans. Ent. Soc., V, 285.—Mex.
- fasciata** SAY, Jour. Acad. Sci. Phil., III, 37; Amer. Entomology, pl. XIII; Compl.
Works, I, 28 (*Leptis*).—Pa.
WIEDEMANN, AUSS. ZW., I, 225 (id.).
WALKER, List, I, 215 (*Leptis par*).—N. A. [O. S.]
N. J.—Smith Cat.
- flavida** BIGOT, Bull. Soc. Zool. France, XII, 8.—Canada. Montreal—Chagnon.
- fœda** LOEW, Cent., I, 18.—Ill.
COQUILLETT, Canad. Ent., XV, 112, describes larva and pupa; larva lives
in the earth.
- griffithi** JOHNSON, Ent. News, VIII, 119.—Boykins, Va.; Hertford Co., N. C.;
Tifton, Ga.

humilis LOEW, Berl. Ent. Zeitschr., 1874, 379.—San Francisco.

OSTEN SACKEN, West. Dipt., 223, transl. of orig. desc.

invalida WILLISTON, Biologia, Dipt., 1, 265.—Guerrero, Mex.

jamaicensis JOHNSON, Proc. Acad. Nat. Sci., 1894, 273.—Jamaica.

latifrons WILLISTON, Biologia, Dipt., 1, 266.—Guerrero, Mex.

ludens LOEW, Wien. Ent. Monatschr., v, 34.—Cuba.

WILLISTON, Dipt. St. Vincent, 303, notes.—St. Vincent, W. I.
mexicana BELLARDI, Saggio, II, 96.—Mex.

modesta LOEW, Cent., x, 14.—Texas.

JOHNSON, Ent. News, VIII, 120, oc. in Indiana.

nana WILLISTON, Biologia, Dipt., 1, 265.—Teapa, Mex.

nigra BELLARDI, Saggio, App., 27.—Mex.

ornata SAY, Jour. Acad. Sci. Phil., III, 34; Amer. Entomology, pl. XIII; Compl. Works, I, 26, and II, 54 (*Leptis*).—No locality.

WIEDEMANN, Auss. Zw., I, 221 (id.).—Pa.

? WALKER, List, I, 213.—Trenton Falls, N. Y.; identification with a doubt.
GUÉRIN, Iconographie du règne animal, etc., III, 541, pl. xcvi, f. 3 (*Leptis serveillei*). [O. S., Cat., 229, note 92.]

HINE, Ohio Naturalist, II, 170, notes on larva and pupa, found under rotten wood. A common species from the Mississippi Valley east—J. M. A.

plebeia WILLISTON, Biologia, Dipt., 1, 264.—Guerrero, Mex.

propinqua WALKER, List, I, 215 (the male as *simillima*, with a query as to the identity).—Trenton Falls, N. Y.

N. J.—Smith Cat.; Montreal—Chagnon.

↓ *proxima* WALKER, List, I, 214 (*Leptis*).—Nova Scotia. Montreal—Chagnon.

puella WILLISTON, Biologia, Dipt., 1, 265.—Teapa, Mex.

quadrata SAY, Jour. Acad. Sci. Phil., III, 35; Compl. Works, II, 55 (*Leptis*); the female.—U. S.

WIEDEMANN, Auss. Zw., I, 226 (id.).—Pa.

WALKER, List, I, 216 (*Leptis reflexa*).—Ohio, Nova Scotia. [O. S.]

VAN DER WULP, Tijdsch. v. Ent., x, 143, pl. IV, f. 6-11 (*dispar*).—Wis. [O. S.]

SAY, Jour. Acad. Sci. Phil., III, 37 (*Leptis fumipennis*); Compl. Works, II, 56; the male.—Pa. [J. M. A.]

WIEDEMANN, Auss. Zw., I, 227.—Pa.

WALKER, List, I, 217 (id.).—Nova Scotia to Ga.

A very common species from the Mississippi Valley to the Atlantic.—J. M. A.

rotundipennis LOEW, Cent., I, 19.—Ga.

JOHNSON, Ent. News, VIII, 120, oc. in Pa., N. C., Va. N. J.—Smith Cat.

testaceipes BIGOT, Bull. Soc. Zool. France, XII, 9.—Wash.

thoracica FABRICIUS, Syst. Antl., 70 (*Leptis*).—Carolina.

WIEDEMANN, Auss. Zw., I, 222 (id.).

MACQUART, Dipt. Exot., II, 1, 32, pl. III, bis., f. 3.—N. A.

"Eastern North America, common."—O. S.

tomentosa BIGOT, Bull. Soc. Zool. France, XII, 8.—Col., Wash.

trifasciata WALKER, Trans. Ent. Soc., v, 284.—Mex.

velutina LOEW, Cent., I, 17.—Ill.

Ky.—O. S.; St. Augustine, Fla.—Johnson.

SPANIA.

- MEIGEN, Syst. Besch., VI, 335, 1830.
 MACQUART, Hist. Nat. Dipt., I, 430, 1834.
 ZETTERSTEDT, Dipt. Scand., I, 226, 1842 (*Ptiolina*).
 FRAUENFELD, Verh. Zool.-Bot. Ges., 1867, 495 (*Ptiolina*).
 STROBL, Wiener Ent. Zeit., XI, 121, 1892, syn., etc.
edeta WALKER, List, III, 489.—Martin Falls, Canada.
 OSTEN SACKEN, Cat., 229, note 95.
 COQUILLETT, Proc. Wash. Acad. Sci., II, 406, oc. at Muir Inlet and Sitka,
 in Alaska, and in White Mts., N. H.
fasciata LOEW, Cent., IX, 65 (*Ptiolina*).—Canada.
majuscula LOEW, Cent., IX, 66 (*Ptiolina*).—Canada.

ATHERIX.

- MEIGEN, Illig. Mag., II, 271, 1803; Syst. Besch., II, 79, 1820.
 MACQUART, Hist. Nat. Dipt., I, 431, 1834.
 ZETTERSTEDT, Dipt. Scand., I, 225, 1842.
 SCHINER, Fauna Austr., I, 177, 1862.
 RILEY and HOWARD, Insect Life, II, 386, note on eggs of *Atherix* sp.
concinna WILLISTON, Biologia, Dipt., I, 266.—Guerrero, Mex.
latipennis BELLARDI, Saggio, II, 93.—Mex.
 WILLISTON, Biologia, Dipt., I, 166.—Mexico, several places.
longipes BELLARDI, Saggio, II, 94, pl. II, f. 17.—Mex.
 ? OSTEN SACKEN, Biologia, Dipt., I, 62.—Costa Rica, Panama.
pachypus BIGOT, Bull. Soc. Zool. France, XII, 21.—Wash.
varicornis LOEW, Cent., X, 13.—Cal.
variegata WALKER, List, I, 218.—Martin Falls, Canada.
 IVES, Ent. News, I, 39, egg-laying habits.
 "Northern States and British Possessions."—O. S.; Montreal—Chagnon.
vidua WALKER, List, IV, 1153.—Martin Falls, Canada.

SYMPHOROMYIA.

- FRAUENFELD, Verh. Zool.-Bot. Ges., 1867.
 COQUILLETT, Jour. N. Y. Ent. Soc., II, 53, table of species.
cinerea JOHNSON, Ent. News, XIV, 25.—Long Branch, N. J.
cruenta COQUILLETT, Jour. N. Y. Ent. Soc., II, 55.—S. Cal.
fera COQUILLETT, Jour. N. Y. Ent. Soc., II, 56.—Col.
fulvipes BIGOT, see *latipalpis*.
hirta JOHNSON, Ent. News, VIII, 120.—Pa.
johnsoni COQUILLETT, Jour. N. Y. Ent. Soc., II, 54.—Wash.; Brit. Col.
latipalpis BIGOT, Bull. Soc. Zool. France, XII, 13.—Wash.
 BIGOT, op. cit., 14 (*fulvipes*).—Mt. Hood, Ore. [Coq.]
 Beulah, N. M.—Skinner (*fulvipes*).
modesta COQUILLETT, Jour. N. Y. Ent. Soc., II, 54.—Cal.
pachyceras WILLISTON, Trans. Amer. Ent. Soc., XIII, 287.—Col.
 BIGOT, Bull. Soc. Zool. France, XII, 13 and 15 (*trivittata*, *atripes* and *comata*).—Col.; Mt. Hood, Ore.; Cal. Syn. of first by Bigot, the others by Coquillett.
plangens WILLISTON, Trans. Amer. Ent. Soc., XIII, 287.—Wash.; Mt. Hood, Ore.
 BIGOT, Bull. Soc. Zool. France, XII, 13 (*picticornis*).—Wash. [Bigot.]

pullata COQUILLET, Jour. N. Y. Ent. Soc., II, 56.—Col. and N. H. Also at Sitka—Coq.

trucis COQUILLET, Jour. N. Y. Ent. Soc., II, 55.—S. Cal.

HILARIMORPHA.

SCHINER, Wien. Ent. Monatsch., IV, 54, 1860; Fauna Austr., I, 116, 1862.

MIK, Verh. Zool.-Bot. Ges., 1881, 327.

WILLISTON, Psyche, 1888, 99.

OSTEN SACKEN, Berl. Ent. Zeitsch., XXXV, 303, 1890.

COQUILLET, Revision Empidæ, 388, note.

MELANDER, Mon. Empidæ, 338, 1902, note on position.

mikii WILLISTON, Psyche, 1888, 100.—Ill.

obscura BIGOT, Annales, 1889, 129.—Cal.

MYTHICOMYIA.

COQUILLET, Ent. News, IV, 209, 1893; Revis. Empid., 409, 1896, table of species.

WILLISTON, Manual, 73, note, would place in Leptidæ.

MELANDER, Mon. Empid., I, 337, 1902, places in Leptidæ.

pictipes COQUILLET, Revis. Empidæ, 103.—Williams, Ariz.

rileyi COQUILLET, Ent. News, IV, 209, fig.—Cal.

MELANDER, Mon. Empid., I, 338.—Mesilla Park, N. M.

scutellata COQUILLET, Proc. U. S. N. M., XXV, 102.—Williams, Ariz.

tibialis COQUILLET, Revis. Empid., 409.—Los Angeles Co., Cal.

MELANDER, Mon. Empid., I, 338.

NEMESTRINIDÆ.

BIGOT, Annales, 1881, 15, table of genera of the world.

WILLISTON, Canad. Ent., XV, 69, 1883, synopsis of the North American species.

HIRMONEURA.

MEIGEN, Syst. Besch., II, 132, 1820.

SCHINER, Fauna Austr., I, 46, 1862.

PHILIPPI, Verh. Zool.-Bot. Ges., 1865, 655 (*Hermoncurea*).

BIGOT, Bull. Soc. Ent. France, 1879, no. 8; Annales, 1881, 15 (*Parasym-mictus*) [Will.].

brevirostris MACQUART, Dipt. Exot., Suppl., I, 101, pl. XX, f. 1.—Yucatan, Mex.

WILLISTON, Canad. Ent., XV, 69.

clausa OSTEN SACKEN, West. Dipt., 225.—Texas.

BIGOT, Bull. Soc. Ent. France, 1879, no. 8; Annales, 1881, 15 (*Parasym-mictus*).

BRAUER, Offenes Schreiben, 8, refers to *Rhynchocephalus*.

OSTEN SACKEN, Berl. Ent. Zeitsch., XLII, 1897, corrects Brauer.

flavipes WILLISTON, Trans. Amer. Ent. Soc., XIII, 292.—U. S.

psilotes OSTEN SACKEN, Biologia, Dipt., I, 74.—Mex.

RHYNCHOCEPHALUS.

FISCHER, Mém. Soc. Imp. de Moscow, I, 217, 1806.

SCHINER, Fauna Austr., I, 45, 1862.

WILLISTON, Canad. Ent., XXIV, 70, 1892.

- sackeni** WILLISTON, Trans. Conn. Acad. Sci., iv, 243; Canad. Ent., xv, 71; Ent. News, v, 47, habits.—Wash.
volaticus WILLISTON, Canad. Ent., xv, 71; Trans. Amer. Ent. Soc., xiii, 293, correction.—Fla.
 St. Augustine, Fla.—Johnson.
OSTEN SACKEN, Biologia, Dipt., i, 73 (*Rhynch. sp.*).—Guatemala. [Will.]
WILLISTON, Biologia, Dipt., i, 269, oc. in Guerrero, Mex.

CYRTIDÆ.

- BIGOT**, Annales, 1889, 315, table of all genera.
OSTEN SACKEN, Berl. Ent. Zeitsch., xli, 1896, 323, discussion of generic characters, etc.
WILLISTON, Manual N. A. Dipt., 70, on habits—parasitic on spiders and their eggs.

PTERODONTIA.

- GRAY**, in Griffith's Animal Kingd., xv, 779, pl. cxxvii, f. 3, 1832.
ERICHSON, Entomographien, 1840, 161.
SCHINER, Fauna Austr., i, 72, 1862.
MELANDER, Ent. News, xiii, 179, 1902, table of species.
 analis WESTWOOD, Trans. Ent. Soc., v, 97.—Ga. (Preoc.—Osten Sacken.)
MELANDER, Ent. News, xiii, 179, oc. at Wood's Hole, Mass.; notes.
flavipes GRAY, in Griffith's Animal Kingd., pl. cxxviii, f. 3.
WESTWOOD, Trans. Ent. Soc., v, 96.—Ga.
 Montreal—Chagnon; Province of Quebec—Fyles.
misella OSTEN SACKEN, West. Dipt., 277.—Ore.
WILLISTON, Trans. Amer. Ent. Soc., xiii, 295, probably same as *flavipes*.
 Alameda Co., Cal.—Melandar; Wash.—in coll. O. B. Johnson.
vix TOWNSEND, Proc. Cal. Acad. Sci., iv, 607.—S. Cal.

NOTHRA.

- WESTWOOD**, Trans. Ent. Soc. Lond., 1876, 514.
americana BIGOT, Annales, 1889, 320.—Wash.

ONCODES.

- LATREILLE**, Précis d. Caract. génér. d. Ins., 154, 1796 (*Ogcodes*).
MEIGEN, Klassifikation, 150, 1804 (*Henops*).
ERICHSON, Entomographien, 169, 1840; Archiv. f. Naturgeschichte, Berlin, 1846, 288;—reprinted by Roeder, Wien. Ent. Zeit., ii, 95.
GERSTÆCKER, Stett. Ent. Zeit., 1856, 353.
SCHINER, Fauna Austr., i, 73, 1862.
ædon TOWNSEND, Proc. Cal. Acad. Sci., iv, 608.—Baja Pisisima, Lower Cal.
costatus LOEW, Cent., ix, 67.—Mass.
MELANDER, Ent. News, xiii, 178, notes; oc. in Wis. and Ont.
 N. J.—Smith Cat.; Montreal—Chagnon.
dispar MACQUART, Dipt. Exot., Suppl., v, 67, pl. ii, f. 12 (*Henops*).—Baltimore.
eugonatus LOEW, Cent., x, 18.—Texas.
MELANDER, Ent. News, xiii, 178, oc. at Austin, Tex., and notes.
humeralis OSTEN SACKEN, Biologia, Dipt., i, 164.—N. Sonora, Mex.
incultus OSTEN SACKEN, West. Dipt., 179.—White Mts., N. H.
 N. J.—Smith Cat.

melampus LOEW, Cent., x, 17.—Cal.

TOWNSEND, Proc. Cal. Acad. Sci., iv, 609.—San Francisco Mts., Ariz., fir zone.

pallidipennis LOEW, Cent., vi, 32.—Pa.

TOWNSEND, Proc. Cal. Acad. Sci., iv, 609, notes; oc. in Va. and D. C. N. J.—Smith Cat.

PHILOPOTA.

WIEDEMANN, Auss. Zw., ii, 17, pl. ix, f. 1, 1830.

ERICHSON, Entomographien, 152, 1840.

truquii BELLARDI, Saggio, i, 77, pl. ii, f. 20.—Cuazimalpa, Mex.

OPSEBIUS.

COSTA, Rendiconto d. Soc. R. Borbon d. Sc., v, 20, 1856.

LOEW, Wien. Ent. Monatschr., i, 33, 1857 (*Pithogaster*); Beschr. Europ. Dipt., ii, 64, 1871.

SCHINER, Fauna Austr., i, 75, 1862.

OSTEN SACKEN, Cat., 240, 1878, table of species.

MELANDER, Ent. News, xiii, 180, 1902, table of species.

agelenæ MELANDER, see *pterodontinus*.

diligens OSTEN SACKEN, West. Dipt., 278.—Vancouver Id.

gagatinus LOEW, Cent., vi, 34.—Pa.

paucus OSTEN SACKEN, West. Dipt., 279.—Cal.

pterodontinus OSTEN SACKEN, Berl. Ent. Zeitsch., xxvii, 299, 1883.—Dallas, Texas. Montreal—Chagnon.

MELANDER, Ent. News, xiii, 6 (*agelenæ*).—Austin, Tex., and Rochester, Wis.; parasitic on *Agelena neriia* Bosc. [Adams, Kans. Univ. Sci. Bull., ii, 32.]

sulphuripes LOEW, Cent., ix, 68.—Sharon Spr., N. Y.

MELANDER, Ent. News, xiii, 180, oc. in Alameda Co., Cal., and notes.

ACROCERA.

MEIGEN, Illig. Mag., ii, 266, 1803; Syst. Besch., iii, 94, 1822.

ERICHSON, Entomographien, 164, 1840.

GERSTÄCKER, Stett. Ent. Zeit., 1856, 347.

SCHINER, Fauna Austr., i, 72, 1862.

MONTGOMERY, Proc. Acad. Nat. Sci. Phil., 1903, 68; note on habits.

EMERTON, Psyche, v, 404, 1890, fig.; note on habits.

bimaculata LOEW, Cent., vi, 33.—D. C.

bullata WESTWOOD, Trans. Ent. Soc., v, 98.—N. Y.

fasciata WIEDEMANN, Auss. Zw., ii, 16.—Ga.

ERICHSON, Entomographien, 166, 1840.

JOHNSON, Ent. News, xiv, 64, mentions the rearing of this from *Lycosa stonei*.

fumipennis WESTWOOD, Trans. Ent. Soc., v, 98.—Ga.

litrata WILLISTON, Trans. Amer. Ent. Soc., xiii, 294.—Wash.

nigrina WESTWOOD, Trans. Ent. Soc., v, 98.—Ga.

obsoleta VAN DER WULP, Tijdschr. v. Ent., x, 139, pl. iii, f. 17.—Wis.

subfasciata WESTWOOD, Trans. Ent. Soc., v, 98.—N. Y.

unguiculata WESTWOOD, Trans. Ent. Soc., v, 98.—Ga.

APPELEIA.

BELLARDI, Saggio, App., 19, 1862.

vittata BELLARDI, op. cit., fig. 12.—Playa Vicente, Mex.

OCNÆA.

ERICHSON, Entomographien, 155, 1840.

grossa OSTEN SACKEN, Biologia, Dipt., 1, 163, pl. III, f. 7.—Costa Rica.

helluo OSTEN SACKEN, West. Dipt., 278.—Dallas, Texas.

WILLISTON, Trans. Amer. Ent. Soc., XIII, 294, note.

MELANDER, Ent. News, XIII, 182, oc. at Marble Falls, Texas, and notes.

micans ERICHSON, Entomographien, 155, 1840.—Mex.

trichocera OSTEN SACKEN, Biologia, Dipt., 1, 164.—Panama.

LASIA.

WIEDEMANN, Analecta Ent., II, 1824; Auss. Zw., I, 329, 1828.

ERICHSON, Entomographien, 142, 1840.

kletti OSTEN SACKEN, in "Explorations and Surveys west of the One Hundredth Meridian," vol. v, Zoology, 804 (Washington, 1875), woodcuts.—Camp Apache, Ariz.

WILLISTON, Trans. Amer. Ent. Soc., XIII, 294, oc. in N. M.; doubts if it be a Lasia.

scribæ OSTEN SACKEN, Biologia, Dipt., 1, 166.—Guatemala.

EULONCHUS.

GERSTÆCKER, Stett. Ent. Zeit., 1856, 359.

marginatus OSTEN SACKEN, West. Dipt., 277.—Napa Val., Cal.

sapphirinus OSTEN SACKEN, West. Dipt., 276.—Webber L. and Calaveras, Cal. Marin Co., Cal.—Melander.

smaragdinus GERSTÆCKER, Stett. Ent. Zeit., 1856, 360.—Cal.

OSTEN SACKEN, West. Dipt., 276, oc. at San Francisco, and notes.

Marin Co., Cal., Melander; Utah—J. M. A.

tristis LOEW, Cent., x, 19.—Coast Mts., Cal.

MELANDER, Ent. News, XIII, 181, oc. in N. Idaho, and in Marin Co., Cal.; part. desc.

PIALOIDEA.

WESTWOOD, Trans. Ent. Soc. Lond., 1876, 514.

magna WALKER, List, III, 511 (*Cyrtus*).—Ga.

metallica WILLISTON, Biologia, Dipt., 1, 165.—Guatemala.

BOMBYLIIDÆ.**COQUILLETIA.**

WILLISTON, Manual N. A. Dipt., 65, 1896.

vandykei COQUILLET, Trans. Amer. Ent. Soc., XXI, 94 (*Spogostylum*).—Mariposa Co., Cal.

SPOGOSTYLUM.

MACQUART, Dipt. Exot., II, 1, 53, 1841.

SCHINER, Wien. Ent. Monatsch., IV, 51, 1860 (*Argyromaba*); Fauna Austr., I, 52, 1862 (id.).

LOEW, Besch. Europ. Dipt., I, 228, 1869 (*Argyromaba*); Cent., vol. II, p. 290, amends to *Argyromaba*.



- WILLISTON, Manual N. A. Dipt., 65, 1896.
- OSTEN SACKEN, West. Dipt., 241, 1877, table of species; Biologia, Dipt., 1, 98, 1886, table and full discussion (*Argyramaba*).
- WILLISTON, Manual, 65, 1896; Biologia, Dipt., 1, 275, 1901.
- COQUILLET, Trans. Amer. Ent. Soc., XXI, 95, table of species (*Argyramaba*).
- BEZZI, Zeitschr. f. Hymenopt. und Dipterologie, 1902, 192, proposes a revolution in the nomenclature of this and other genera of the family, with which I do not agree, as it seems based too much on guess-work as to the types.
- acroleuca** WIEDEMANN, Auss. Zw., 1, 312, note (*Anthrax*).—S. A.
- MACQUART, Dipt. Exot., 1, 1, 64, pl. XX, f. 11 (*Anthrax gidcon* FABR.).—S. A.
- SCHINER, Novara, 122 (id.).
- OSTEN SACKEN, Biologia, Dipt., 1, 101, syn., etc. (*Argyramaba*).—Guatemala.
- WILLISTON, Biologia, Dipt., 1, 275, oc. in Atoyac, Mex. (*Argyramaba*).
- albofasciatum** MACQUART, Dipt. Exot., II, 1, 67 (*Anthrax*).—Ga.
- LOEW, Cent., VIII, 47 (*Arg. obsoleta*).—Mo. [Coq.]
- N. J.—Smith Cat.; Lake Worth, Fla.—Johnson.
- albosparsum** BIGOT, see *argyropyga*.
- anale** SAY, Jour. Acad. Sci. Phil., III, 45; Compl. Works, II, 60 (*Anthrax*).—Ga.
- WIEDEMANN, Auss. Zw., 1, 313 (id.).
- ? MACQUART, Hist. Nat. Dipt., 1, 406 (*Anthrax georgica*); Dipt. Exot., II, 1, 68 (id.); Dipt. Exot., II, 1, 67, doubtful oc. of *analis* in Brazil. [O. S., with a doubt.]
- OSTEN SACKEN, Biologia, Dipt., 1, 101, doubtful oc. in Mex.
- N. J.—Smith Cat.; St. Augustine, Fla.—Johnson; Montreal—Chagnon; Atlantic States and Canada—O. S. Cat.
- ? **angustipennis** MACQUART, Dipt. Exot., II, 1, 64, pl. XXI, f. 9 (*Anthrax*).—Guiana.
- ? WILLISTON, Biologia, Dipt., 1, 275, doubtful oc. in Acapulco, Mex.
- argyropyga** WIEDEMANN, Auss. Zw., 1, 313 (*Anthrax*).—No locality.
- LOEW, Cent., VIII, 50 (*Arg. continua*).—Va. [O. S.]
- ? BIGOT, Annales, 1892, 348 (*Arg. albosparsa*).—Col. [Coq., with a doubt.]
- Ga.—O. S. Cat.; N. J.—Smith Cat.; Fla.—Johnson.
- cephus** FABRICIUS, Syst. Antl., 124 (*Anthrax*).—S. A.
- WIEDEMANN, Auss. Zw., 1, 297 (id.).
- MACQUART, Dipt. Exot., II, 1, 59 (id.).—Ga.
- Va.—O. S. Cat.; St. Augustine, Fla.—Johnson.
- cybele** COQUILLET, Trans. Amer. Ent. Soc., XXI, 96 (*Argyramaba*).—Ariz.
- daphne** OSTEN SACKEN, Biologia, Dipt., 1, 104, pl. II, f. 6 (*Argyramaba*).—N. Sonora, Mex.
- ? WILLISTON, Dipt. of Death Valley Exped., 254, note, doubtful oc. in Panamint Val., Cal.
- delila** LOEW, Cent., VIII, 45 (*Argyramaba*).—Cal.
- ? **disjunctum** WIEDEMANN, Auss. Zw., II, 639 (*Anthrax*).—Mex. Query in O. S. Cat.
- euplanes** LOEW, Cent., VIII, 49 (*Argyramaba*).—Cuba.
- fur** OSTEN SACKEN, West. Dipt., 244 (*Argyramaba*); Biologia, Dipt., 1, 105 (id.).—Texas; N. Sonora, Mex.

? **gideon** FABRICIUS, Syst. Antl., 125 (*Anthrax*).—S. A.

WIEDEMANN, Auss. Zw., 311 (id.).—S. A.

? WALKER, List, II, 257, doubtful oc. in Jamaica.

latelimbata BIGOT, of Johnson, Dipt. Fla., see *Anthrax*.

leucothoa WIEDEMANN, see *Anthrax*.

limatulus SAY, Jour. Acad. Sci. Phil., VI, 157; Compl. Works, II, 354 (*Anthrax*).—Ind.

WALKER, Dipt. Saund., 193 (*Anth. antecedens*).—U. S. [Coq.]

? OSTEN SACKEN, West. Dipt., 243, doubtful oc. in Col. and Cal.

N. J.—Smith Cat.; Lake Worth, Fla.—Johnson.

melanopogon BIGOT, Annales, 1892, 348 (*Argyramaba*).—N. A.

œdipus FABRICIUS, Syst. Antl., 123 (*Anthrax*).—West Indies.

WIEDEMANN, Dipt. Exot., 124; Auss. Zw., I, 262 (id.).—Ky. and Pa.

SAY, Jour. Acad. Sci. Phil., III, 46; Compl. Works, II, 61 (*Anthrax irrorata*).—Rocky Mts.

MACQUART, Dipt. Exot., II, I, 60, pl. XX, f. 6 (*Anthrax irrorata*).—Car. and Ga.

SCHINER, Novara, 121 (*Argyromaba*).—S. A.

WALKER, Dipt. Saund., 192 (*Anthrax aqua*).—S. A.

WALKER, List, II, 253 (*Anthrax punctum*).—Brazil.

F. LYNCH A., El Nat. Argentina, I, 243, oc. in Argentina.

OSTEN SACKEN, Biologia, Dipt., I, 101, syn., etc. (*Argyramaba*); oc. from Brit. Possessions to Argentine Republic.

TOWNSEND, Amer. Naturalist, Jan., 1893, desc. of puparium (id.).

BAKER, Ent. News, VI, 173, reared from nests of *Odynerus*, several species, at Ft. Collins, Col.; "a true external parasite."

Beulah, N. M.—Skinner.

pauper LOEW, Cent., VIII, 48 (*Argyramaba*).—Ill. N. J.—Smith Cat.

pluto WIEDEMANN, Auss. Zw., I, 261 (*Anthrax*).—Ky.

OSTEN SACKEN, West. Dipt., 244 (*Argyramaba*).—Canada to Texas.

VAN DER WULP, Tijdschr. v. Ent., XXV, 85, pl. IX, f. 10.

OSTEN SACKEN, Biologia, Dipt., I, 102, quotes West. Dipt., etc. (*Argyramaba*).

seriepunctatum OSTEN SACKEN, Biologia, Dipt., I, 103, pl. II, f. 5 (*Argyramaba*).

—N. Sonora and Tehuacan, Mex.

simson FABRICIUS, Syst. Antl., 49 (*Anthrax*).—S. A.

DEGEER, Mém. pour Serv. Hist. Nat. Ins., VI, pl. XXIX, f. 11 (*Nemotelus tigrinus*). [Wied.]

SAY, Jour. Acad. Sci. Phil., III, 43; Compl. Works, II, 59 (*Anthrax scripta*).—Pa. [Wied.]

WIEDEMANN, Dipt. Exot., 122; Auss. Zw., I, 259, pl. III, f. 2 (id.).—Pa.

SCHINER, Novara, 120, oc. in Colombia.

OSTEN SACKEN, Biologia, Dipt., I, 100, syn., etc.; "said to be a parasite in nests of *Xylocopa virginica* in U. S."

WILLISTON, Biologia, Dipt., I, 275, oc. in Guerrero, Mex.

DAVIDSON, Ent. News, IV, 153, in nests of *Xylocopa opifex*.—Los Angeles, Cal.

N. J.—Smith Cat.; St. Augustine, Fla.—Johnson.

stellans LOEW, Cent., VIII, 46 (*Argyramaba*).—Ore.

varium FABRICIUS, Ent. Syst., IV, 259 (*Anthrax*); Syst. Antl., 122 (id.).—France.

MEIGEN, Syst. Besch., II, 124 (*Anthrax*).

SCHINER, Fauna Austr., 1, 54 (id.).

COQUILLETT, Trans. Amer. Ent. Soc., xxi, 96, oc. in Cal.; compared with European specimens.

? **varicolor** BIGOT, Annales, 1892, 347 (*Argyramacha*).—"Amérique du Nord; Colombie, 1 spécimen." [I take this to mean South America.]

ALDRICHIA.

COQUILLETT, Trans. Amer. Ent. Soc., xxi, 93, 1894.

ehrmanni COQUILLETT, loc. cit.—Pa.

HYPERALONIA.

RONDANI, Archivio per la Zool. Modena, III, p. 1, 1864.

OSTEN SACKEN, Biologia, Dipt., 1, 89, 1886.

COQUILLETT, Canad. Ent., 1886, 158 (*Velocia*). [Coq.]

WILLISTON, Biologia, Dipt., 1, 273, 1901, notes.

albiventris MACQUART, Dipt. Exot., Suppl., III, 33, pl. III, f. 15 (*Exoprosopa*).—Rio Negro, Brazil.

VAN DER WULP, Tijdschr. v. Ent., xxiv, 164, pl. xv, f. 11.—Venezuela.

ERICHSON, in Schomburgk's Reise in Brit. Guiana (*Anthrax hela*).

OSTEN SACKEN, Biologia, Dipt., 1, 89, desc. and extended notes.—N. Sonora, Mex.

cerberus FABRICIUS, Ent. Syst., IV, 256 (*Anthrax*); Syst. Antl., 118 (id.).—West Indies.

WIEDEMANN, Dipt. Exot., 118; Auss. Zw., 1, 258 (id.).—S. A.

Porto Rico—Roeder; Jamaica—Johnson.

dido OSTEN SACKEN, Biologia, Dipt., 1, 91, pl. 1, f. 17.—Tres Marias Ids., Mex.

gazophylax LOEW, Cent., VIII, 18 (*Exoprosopa*).—Cal.

COQUILLETT, Trans. Amer. Ent. Soc., xxi, 93, corrects orig. desc. and refers to this genus.

kaupii JÄNNICKE, Neue Exot. Dipt., 32, pl. II, f. 17.—Mex.

OSTEN SACKEN, Biologia, Dipt., 1, 94, note.—Tehuacan, Mex.

WILLISTON, Biologia, Dipt., 1, 273, oc. in Amula, Mex.

latreillei WIEDEMANN, Auss. Zw., II, 633 (*Anthrax*).—Mex.

OSTEN SACKEN, Biologia, Dipt., 1, 94, pl. 1, f. 18, and pl. II, f. 1.—Guatemala and Panama.

pilatei MACQUART, Dipt. Exot., Suppl., 1, 110, pl. XX, f. 2 (*Anthrax*).—Yucatan, Merida.

OSTEN SACKEN, Biologia, Dipt., 1, 90, pl. 1, f. 16.—Tres Marias Ids., Mex.

proserpina WIEDEMANN, Auss. Zw., 1, 257 (*Anthrax*); II, 632 (*Anthrax klugii*).—No locality; Cassapava, Brazil. [Schiner.]

MACQUART, Dipt. Exot., II, 1, 38, pl. XVI, f. 5 (*Exoprosopa cerberus* FAB.).—Brazil. [Will.]

BIGOT, in Sagra's Cuba, 793.

WALKER, List, III, 238 (*Anthrax rufescens*).—No locality. [O. S.]

SCHINER, Novara, 117 (*Exoprosopa*).

F. LYNCH A., El. Nat. Argentina, 1, 266 (*Exoprosopa*), oc. in Argentina.

VAN DER WULP, Tijdschr. v. Ent., xxiv, 165, pl. xv, f. 12 (*Exoprosopa*).—S. A.

OSTEN SACKEN, Biologia, Dipt., 1, 92.—Guatemala; Costa Rica.

WILLISTON, Biologia, Dipt., 1, 273, oc. in Teapa, Mex.

Jamaica—Johnson.

[*serveillei* MACQUART, identified by Coquillett from Porto Rico and Bahamas in Proc. U. S. N. M., xxii, 251, was never described; Macquart has a figure of a wing with the name *Exoprosopa serveillei*, on pl. xvi, Dipt. Exot., II. As there is no locality, and the other figures on the plate are from all parts of the world, it seems to me undesirable to try to resurrect the species.]

EXOPROSOPA.

MACQUART, Dipt. Exot., II, I, 35, 1840; op. cit., 78 (*Litorhynchus*).

MULSANT, Mém. Acad. de Lyon., 1852, 18 (*Trinaria*).

RONDANI, Dipt. Ital. Prod., I, 156, 1856; Archivio per la Zool. Modena, III, 1864 (*Argyrospila*).

SCHINER, Fauna Austriaca, I, 54, 1862.

COQUILLETT, Canad. Ent., XIX, 13, 1887 (*Exoptata*, in part); XXIV, 123, 1892, table of species.

OSTEN SACKEN, Biologia, Dipt., I, 77, 1886, full discussion.

WILLISTON, Biologia, Dipt., I, 269, 1901, syn. of *Exoptata*, etc.

agasizii LOEW, Cent., VIII, 24.—Cal.

anthracoides JÄNNICKE, Neue Exot. Dipt., 32, pl. II, f. 18.—Mex.

LOEW, Cent., VIII, 20 (*trabalis*).—Jalapa, Mex. [O. S.]

OSTEN SACKEN, Biologia, Dipt., I, 85, notes.

bifurca LOEW, Cent., VIII, 23.—Cal.

blanchardiana JÄNNICKE, Neue Exot. Dipt., 33, pl. II, f. 20.—Mex.

brevirostris WILLISTON, Biologia, Dipt., I, 272.—Jalisco, Mex.

brevistylata WILLISTON, Biologia, Dipt., I, 272.—Acapulco, Mex.

caliptera SAY, Jour. Acad. Sci. Phil., III, 46; Compl. Works, II, 62 (*Anthrax*).—Ark.

OSTEN SACKEN, West. Dipt., 233; Biologia, Dipt., I, 81, pl. I, f. 12.—Wyo and N. M.; N. Sonora, Mex.; *capucina* may be the female.

COCKERELL, Jour. N. Y. Ent. Soc., VI, 206, oc. at Agency, N. M.

capucina FABRICIUS, Ent. Syst., IV, 259; Mantissa Ins., II, 329 (*Bibio*); Syst. Antl., 123 (*Anthrax*).—N. A.

OSTEN SACKEN, West. Dipt., 231 (*dorcadion*); Cat., 85, note.—Cal., Wash., Col., N. H., Me.

? WALKER, Dipt. Saund., 172 (*Anthrax californiæ*).—Cal. [O. S., with a doubt.]

cerberus FABRICIUS, see *Hyperalonia*.

For Macquart, see *Hyperalonia proserpina*.

clotho WIEDEMANN, Auss. Zw., II, 635 (*Anthrax*).—Mex.

cubana LOEW, Cent., VIII, 22.—Cuba. Porto Rico—Roeder.

decora LOEW, Cent., VIII, 19.—Wis. O. S. Cat. gives Ga., Tex., Ill., Ia., Red. R. of the North.

divisa COQUILLETT, Canad. Ent., XIX, 13 (*Exoptata*).—Cal., Ariz.

dodrans OSTEN SACKEN, West. Dipt., 234.—Col. Springs, Col.

doris OSTEN SACKEN, West. Dipt., 235.—Humboldt Station, Nev.; Ore. See *iota*.

emarginata MACQUART, Dipt. Exot., II, I, 51.—Philadelphia, Pa.

N. J.—Smith Cat.; Lake Worth, Fla.—Johnson.

eremita OSTEN SACKEN, West. Dipt., 236 (from Shasta district, Cal.); Cat., 237, and Biologia, Dipt., I, 82, notes; may be a var. of *pueblensis*.

St. Augustine and Lake Worth, Fla.—Johnson.

fascipennis SAY, Long's Exped., App., 373; Compl. Works, I, 254 (*Anthrax*).—Red R. of the North ("of Winnepeek").

- WIEDEMANN, Auss. Zw., I, 284 (id.); II, 635 (*A. noctula*).—Ky. and Red R.; N. A. [O. S.]
- MACQUART, Dipt. Exot., II, 1, 52 (*philadelphica*); Suppl., IV, 108 (*coniceps*).—Philadelphia; Va. [O. S.]
- BIGOT, in Sagra's Cuba, 793 (*coniceps* MACQ.).—Cuba.
- Atlantic and Middle States—O. S. Cat.; N. J.—Smith Cat.; Fla., several places—Johnson.
- fasciata** MACQUART, Dipt. Exot., II, 1, 51, pl. XVIII, f. 6; Suppl., IV, 108 (the latter *longirostris*).—U. S.; Va. [O. S.]
- VAN DER WULP, Tijdschr. v. Ent., X, 141, pl. IV, f. 1-4 (*Mulio americana*).—Wis.
- OSTEN SACKEN, West. Dipt., 231, notes.
- N. J.—Smith Cat.; St. Augustine and Ormond, Fla.—Johnson.
- filia** OSTEN SACKEN, Biologia, Dipt., 1, 86.—Durango, Mex.
- WILLISTON, Biologia, Dipt., 1, 272, oc. in Jalisco, Mex., and note.
- gazophylax** LOEW, see *Hyperalonia*.
- grata** COQUILLET, Canad. Ent., XXIV, 124.—Cal., Wash.
- ignifer** WALKER, List, II, 243.—Jamaica.
- OSTEN SACKEN, Cat., 237, note; Biologia, Dipt., 1, 82, *pueblensis* may be the same.
- iota** OSTEN SACKEN, Biologia, Dipt., 1, 82, pl. I, f. 13.—Tehuacan, Mex.
- COQUILLET, Canad. Ent., XXIV, 125, says is same as *doris*.
- WILLISTON, Biologia, Dipt., 1, 270, considers distinct; oc. in Guerrero, Mex.
- lacera** WIEDEMANN, Auss. Zw., II, 633 (*Anthrax*).—Mex.
- latreillei** WIEDEMANN, Auss. Zw., II, 633 (*Anthrax*).—Mex.
- limbipennis** MACQUART, Dipt. Exot., Suppl., I, 110, pl. XX, f. 3.—Yucatan.
- OSTEN SACKEN, Biologia, Dipt., 1, 84.—Ventenas, Mex.
- WILLISTON, Biologia, Dipt., 1, 271.—Guerrero and Yucatan, Mex.; *procne* may be the same.
- melanura** BIGOT, Annales, 1892, 344.—Rocky Mts.
- nubifera** LOEW, Cent., VIII, 25.—Cuba.
- orcus** WALKER, List, II, 237 (*Anthrax*).—Mex.
- pallens** BIGOT, Annales, 1892, 345.—Cal.
- pardus** OSTEN SACKEN, Biologia, Dipt., 1, 88, pl. I, f. 15.—N. Sonora, Mex.
- parva** LOEW, Cent., VIII, 26.—Cuba. Jamaica—Johnson.
- pavida** WILLISTON, Biologia, Dipt., I, 273.—Chilpancingo, Mex.
- pilatei** MACQUART, see *Hyperalonia*.
- procne** OSTEN SACKEN, Biologia, Dipt., 1, 85.—Guatemala.
- WILLISTON, Biologia, Dipt., 1, 271, may not be distinct from *limbipennis*.
- proserpina** WIEDEMANN, see *Hyperalonia*.
- pueblensis** JÄNNICKE, Neue Exot. Dipt., 34, pl. II, f. 21.—Mex.
- OSTEN SACKEN, Biologia, Dipt., 1, 82, notes; oc. in Tehuacan, Mex., and Guatemala.
- WILLISTON, Biologia, Dipt., 1, 270, oc. in Guerrero, Jalisco, and Guanajuato, Mex. See *ignifer* and *cremita*.
- rhea** OSTEN SACKEN, Biologia, Dipt., 1, 83, pl. I, f. 14.—Mex.
- rostrifera** JÄNNICKE, Neue Exot. Dipt., 33, pl. II, f. 19.—Mex.
- OSTEN SACKEN, Biologia, Dipt., 1, 86, notes.
- WILLISTON, Biologia, Dipt., 1, 271, oc. in Guerrero, Mex.
- rubiginosa** MACQUART, Dipt. Exot., II, 1, 51; Suppl., I, 111.—Philadelphia; Colombia, S. A. Unrecognizable—O. S. Cat.

sackeni WILLISTON, *Biologia*, Dipt., I, 271.—Guerrero, Mex.

OSTEN SACKEN, *Biologia*, Dipt., I, 86 (*Exoprosopa*, species No. 1).

[*satyrus* FABRICIUS, recognized by Walker, see O. S. Cat., 87; it is almost certainly not North American.]

simia OSTEN SACKEN, *West. Dipt.*, 231.—Humboldt Desert, Nev.

socia OSTEN SACKEN, *Biologia*, Dipt., I, 87.—Durango, Mex.

Amula, Mex.—Williston.

sordida LOEW, *Cent.*, VIII, 21.—Metamoras, Mex.

subfascia WALKER, *List*, II, 249 (*Anthrax*).—Jamaica.

thomæ FABRICIUS, *Syst. Antl.*, 135 (*Anthrax*).—St. Thomas, W. I.

WIEDEMANN, *Dipt. Exot.*, 129 (id.); *Auss. Zw.*, I, 271 (id.).

titubans OSTEN SACKEN, *West. Dipt.*, 233.—Denver, Col.

trimacula WALKER, see *Anthrax*.

ASTROPHANES.

OSTEN SACKEN, *Biologia*, Dipt., I, 106, 1886.

adonis OSTEN SACKEN, *op. cit.*, 107.—N. Sonora, Mex.

MANCIA.

COQUILLET, *Canad. Ent.*, XVIII, 159, 1886.

WILLISTON, *Synopsis Fam. and Gen. Dipt.*, 1888, 37, quoted.

nana COQUILLET, *Canad. Ent.*, XVIII, 159.—Cal.

DIPALTA.

OSTEN SACKEN, *West. Dipt.*, 236, 1877; *Biologia*, Dipt., I, 98, note.

COQUILLET, *Canad. Ent.*, 1886, 157, unites to *Anthrax*; *Trans. Amer. Ent.*

Soc., XIV, 159, retains as a subgenus; XIX, 169, discards.

WILLISTON, *Biologia*, Dipt., I, 275, 1901, considers a distinct genus.

junctura COQUILLET, *Trans. Amer. Ent. Soc.*, XIV, 163; XIX, 177, notes on variation.—Cal.

keenii COQUILLET, see *Anthrax clelia*.

serpentina OSTEN SACKEN, *West. Dipt.*, 237.—Ga., Col., Cal., Mex.

COQUILLET, *Trans. Amer. Ent. Soc.*, XIV, 164.—Fla.

WILLISTON, *Biologia*, Dipt., I, 275, oc. in Guerrero and Vera Cruz, Mex.

St. Augustine, Fla.—Johnson.

LEPIDANTHRAX.

OSTEN SACKEN, *Biologia*, Dipt., I, 107, 1886.

COQUILLET, *Trans. Amer. Ent. Soc.*, XIX, 169, 1892.

agrestis COQUILLET, *Trans. Amer. Ent. Soc.*, XIV, 171 (*Anthrax*); XIX, 169, *gen. ref.*—Cal.

angulus OSTEN SACKEN, *Biologia*, Dipt., I, III, pl. II, f. 9.—Cal.; N. Sonora, Mex.

campestris COQUILLET, *Trans. Amer. Ent. Soc.*, XIV, 171 (*Anthrax*); XIX, 171, *gen. ref.*—Cal.

disjuncta WIEDEMANN, *Auss. Zw.*, II, 639 (*Anthrax*).—Mex.

OSTEN SACKEN, *Biologia*, Dipt., I, 108, pl. II, f. 7.—Orizaba and Tuxpango, Mex.

WILLISTON, *Biologia*, Dipt., I, 276, oc. in Guerrero, Mex.

inaurata COQUILLET, *Trans. Amer. Ent. Soc.*, XIV, 170 (*Anthrax*); XIX, 169, *ref.*—Cal.

lauta COQUILLETT, Trans. Amer. Ent. Soc., xiv, 171 (*Anthrax*); xix, 169, gen. ref.—Cal.

proboscidea LOEW, Cent., viii, 27 (*Anthrax*).—Sonora, Mex.

COQUILLETT, Trans. Amer. Ent. Soc., xiv, 168.—Ariz., Mex.

OSTEN SACKEN, Biologia, Dipt., i, 109, pl. ii, f. 8.—N. Sonora, Mex.

WILLISTON, Biologia, Dipt., i, 276, oc. in Guerrero, Mex.

ANTHRAX.

SCOPOLI, Ent. Carniolica, 358, 1763.

FABRICIUS, Syst. Antl., 118, 1805.

MEIGEN, Syst. Besch., ii, 107, 1820.

SCHINER, Fauna Austr., i, 48, 1862.

COQUILLETT, Trans. Amer. Ent. Soc., xiv, 159, 1887, synopsis of the genus in the U. S.; revised, xix, 170-177, 1892; partial table of species, xxi, 97, 1895.

OSTEN SACKEN, Biologia, Dipt., i, 111-140, full treatment of the southern fauna, with subgenera, etc.; also includes the genera *Stonyx*, p. 94, and *Isopenthes*, p. 96, which are not recognized as valid by Coquillett, and the latter not by Williston.

? *abbreviata* WIEDEMANN, Auss. Zw., ii, 637.—Mex. Gen. ref. questioned in O. S. Cat.

adumbrata COQUILLETT, Trans. Amer. Ent. Soc., xiv, 176.—Cal.

adusta LOEW, Cent., viii, 41.—Cuba.

ænea COQUILLETT, Trans. Amer. Ent. Soc., xiv, 165.—Cal.

agrestis COQUILLETT, see *Lepidanthrax*.

agrippina OSTEN SACKEN, Biologia, Dipt., i, 139, pl. iii, f. 3.—N. Sonora, Mex.
COQUILLETT, Trans. Amer. Ent. Soc., xix, 182, oc. in Cal., Wash., Col., N. M.

Suwanee, Fla.—Johnson.

albipectus MACQUART, Dipt. Exot., Suppl., iii, 34, pl. iii, f. 12.—N. A.
Unrecognizable—O. S.

alpha OSTEN SACKEN, West. Dipt., 239.—Cheyenne, Wyo.; Webber L., Cal.

COQUILLETT, Trans. Amer. Ent. Soc., xiv, 180.—Wyo. *Fuliginosa* is said to be probably an immature form of the same species.

✓ *alternata* SAY, Jour. Acad. Sci. Phil., iii, 45; Compl. Works, ii, 61.—Pa., Mo.
WIEDEMANN, Auss. Zw., i, 303.

MACQUART, Dipt. Exot., ii, i, 69, pl. xxi, f. 1 (*consanguinea*).—Philadelphia. [O. S.]

LOEW, Cent., viii, 39 and 40 (*scrobiculata* and *stenozona*).—Ill. [Coq.]

? OSTEN SACKEN, Biologia, Dipt., i, 138 (*stenozona*); oc. in Sonora, with a doubt.

COQUILLETT, Trans. Amer. Ent. Soc., xiv, 166.—N. Y., Md., Fla., Mont., Nebr.

RILEY and HOWARD, Insect Life, ii, 353, reared by Gillette from undet. cut-worm larvæ in Ia. (*scrobiculata*).

N. J.—Smith Cat.; Montreal—Chagnon; Fla.—Johnson; Beulah, N. M.—Skinner.

var. *perimele* WIEDEMANN, Auss. Zw., i, 583.—Brazil.

COQUILLETT, Trans. Amer. Ent. Soc., xiv, 166.—Cal.

anna COQUILLETT, Trans. Amer. Ent. Soc., xiv, 169; xix, 180, notes.—Cal.

arenosa COQUILLETT, Trans. Amer. Ent. Soc., xix, 187.—N. M.

arethusa OSTEN SACKEN, Biologia, Dipt., i, 116, pl. ii, f. 11.—N. Sonora, Mex., to Costa Rica; Col.

- WILLISTON, *Biologia*, Dipt., 1, 277, oc. in Col., N. M., and in Guerrero, Mex.
- arizonensis** COQUILLETT, *Trans. Amer. Ent. Soc.*, XIV, 182.—Ariz.
- astarte** WIEDEMANN, *Auss. Zw.*, II, 637.—Mex.
OSTEN SACKEN, *Biologia*, Dipt., 1, 122, note.
WILLISTON, *Biologia*, Dipt., 1, 279.—Guerrero and Tabasco, Mex.
- atrata** COQUILLETT, *Trans. Amer. Ent. Soc.*, XIV, 171.—Cal.
? WALKER, *Dipt. Saund.*, 190 (*cedens*).—U. S. [Coq., with a doubt.]
- bifenestrata** BIGOT, see *nugator*.
- bigradata** LOEW, *Cent.*, VIII, 37.—Cuba.
? MACQUART, *Dipt. Exot.*, Suppl., IV, 113 (*albovittata*).—N. A.? [Coq., with a doubt; it is probably not North American.]
COQUILLETT, *Trans. Amer. Ent. Soc.*, XIV, 174.—Cal.
Porto Rico—Roeder; Jamaica—Johnson.
- campestris** COQUILLETT, see *Lepidanthrax*.
- caprea** COQUILLETT, *Trans. Amer. Ent. Soc.*, XIV, 170.—Cal.
- castanea** JÄNNICKE, *Neue Exot. Dipt.*, 30, pl. II, f. 15.—Mex.
OSTEN SACKEN, *Biologia*, Dipt., 1, 127.—Guatemala.
- castanipes** BIGOT, *Annales*, 1892, 350.—N. A.
- catulina** COQUILLETT, *Trans. Amer. Ent. Soc.*, XXI, 100.—Wash. and N. Cal.
Hudsonian Zone, N. M.—Cockerell; Beulah, N. M.—Skinner.
- cautor** COQUILLETT, *Trans. Amer. Ent. Soc.*, XIV, 175.—Cal.
- cedens** WALKER, see *atrata*.
- celer** WIEDEMANN, *Auss. Zw.*, I, 310.—Ky.
MACQUART, *Dipt. Exot.*, II, 1, 69; Suppl., IV, 112, pl. x, f. 14 (the latter *floridana*).—Philadelphia; Fla. [Coq.]
COQUILLETT, *Trans. Amer. Ent. Soc.*, XIV, 173.—Venezuela.
St. Augustine, Fla.—Johnson.
- ceria** WILLISTON, *Biologia*, Dipt., 1, 283.—Guerrero, Mex.
- ceyx** LOEW, *Cent.*, VIII, 30.—Va.
? WALKER, *List*, II, 265 (*demogorgon*).—Fla. [O. S., with a doubt.]
MACQUART, *Dipt. Exot.*, II, 1, 68 (*halcyon* SAY).—Car. [O. S.]
COQUILLETT, *Trans. Amer. Ent. Soc.*, XIV, 181.—N. C.
Ga.—O. S. Cat.; N. J.—Smith Cat.
- chimæra** OSTEN SACKEN, *Biologia*, Dipt., 1, 131.—N. Sonora, Mex.
- cinefacta** COQUILLETT, *Trans. Amer. Ent. Soc.*, XIX, 180.—San Diego Co., Cal.
- clelia** OSTEN SACKEN, *Biologia*, Dipt., 1, 95, pl. II, f. 3 (*Stonyx*).—N. Sonora, Mex.
COQUILLETT, *Trans. Amer. Ent. Soc.*, XIV, 164 (*keenii*); XIX, 168, syn.—Ariz.
- clotho** WIEDEMANN, *Auss. Zw.*, II, 635.—Oaxaca, Mex.
OSTEN SACKEN, *Biologia*, Dipt., 1, 95, quotes orig. desc. (*Stonyx*).
WILLISTON, *Biologia*, Dipt., 1, 274, oc. in Morelos, Mex. (*Stonyx*).
- connexa** MACQUART, *Dipt. Exot.*, Suppl. v, 76.—Baltimore, Md.
BIGOT, in Sagra's Cuba, 794.—Cuba.
Unrecognizable—O. S.
- consessor** COQUILLETT, *Trans. Amer. Ent. Soc.*, XIV, 165.—Cal.
- consul** OSTEN SACKEN, *Biologia*, Dipt., 1, 125.—Guatemala.
COQUILLETT, *Trans. Amer. Ent. Soc.*, XXI, 98, doubtful oc. in S. D.
WILLISTON, *Biologia*, Dipt., 1, 280, oc. in Guerrero, Mex.
- costata** SAY, *Long's Exped.*, App., 373; *Compl. Works*, I, 254.—N. W. Terr.
WIEDEMANN, *Auss. Zw.*, I, 314. See *inops*.

crocina COQUILLETT, Trans. Amer. Ent. Soc., XIX, 183.—San Bernardino, Co., Cal.
cuniculus OSTEN SACKEN, Biologia, Dipt., I, 125, pl. II, f. 16.—N. Sonora, Mex.
curta LOEW, Cent., VIII, 35.—Cal.

COQUILLETT, Trans. Amer. Ent. Soc., XIV, 172, transl. orig. desc.

WILLISTON, Biologia, Dipt., I, 281, oc. in N. Yucatan, etc.

cyanoptera WIEDEMANN, Auss. Zw., II, 638.—Mex.

OSTEN SACKEN, Biologia, Dipt., I, 115.—Mex.

WILLISTON, Biologia, Dipt., I, 276, oc. in Guerrero, Mex.

delicatula WALKER, List, II, 266.—Jamaica.

diagonalis LOEW, Cent., VIII, 33.—Cal.

diana WILLISTON, Biologia, Dipt., I, 280.—Guerrero, Mex.

dispar COQUILLETT, Trans. Amer. Ent. Soc., XIV, 177.—Fla.

? BIGOT, Annales, 1892, 354 (*hissus*).—N. A. [Coq., with a doubt.]

St. Augustine, Fla.—Johnson.

edititia SAY, Jour. Acad. Sci. Phil., VI, 157; Compl. Works, II, 353.—No locality.

COQUILLETT, Trans. Amer. Ent. Soc., XIV, 177 (*impiger*).—Ariz. [Will.]

OSTEN SACKEN, Biologia, Dipt., I, 119, pl. II, f. 13.—N. Sonora and Tehuacan, Mex.; Texas. May be same as *A. gorgon*.

WILLISTON, Biologia, Dipt., I, 278, oc. in Guerrero, Mex.; important notes.

edwardsii COQUILLETT, Jour. N. Y. Ent. Soc., II, 102.—San Francisco, Cal., and Vancouver Id., Br. Col.

effrena COQUILLETT, Trans. Amer. Ent. Soc., XIV, 182.—Ariz.

ephebus OSTEN SACKEN, Biologia, Dipt., I, 124.—Tehuacan, Mex.

eudora COQUILLETT, Trans. Amer. Ent. Soc., XIV, 169.—Cal.

eumenes OSTEN SACKEN, Biologia, Dipt., I, 131, pl. II, f. 19.—N. Sonora, Mex.
 Cal.—Coquillett.

eurhinata BIGOT, Annales, 1892, 355.—Mex.

extremities COQUILLETT, Jour. N. Y. Ent. Soc., X, 138.—Chihuahua, Mex.

faunus FABRICIUS, Syst. Antl., 126.—W. I.

WIEDEMANN, Dipt. Exot., 139; Auss. Zw., I, 292.—S. A.

MACQUART, Dipt. Exot., II, I, 75, pl. XXI, f. 1.—Cuba.

COQUILLETT, Trans. Amer. Ent. Soc., XIX, 187, oc. in Fla.

Porto Rico—Roeder; St. Augustine, Fla.—Johnson.

faustina OSTEN SACKEN, Biologia, Dipt., I, 136.—N. Sonora, Mex.

fenestratoides COQUILLETT, Trans. Amer. Ent. Soc., XIX, 185.—San Bernardino Co., Cal.

Panamint Val., Cal.—Williston, Death Val. Exped.

fissa BIGOT, see *dispar*.

flaviceps LOEW, Cent., VIII, 29.—Tamaulipas, Mex.

floridana MACQUART, see *celer*.

fuliginosa LOEW, Cent., VIII, 31.—Cal.

COQUILLETT, Trans. Amer. Ent. Soc., XIV, 181, oc. in Cal. and Texas; *alpha* is probably the same.

fulviana SAY, Long's Exped., App., 372; Compl. Works, I, 253.—Pembina, Minn., etc.

WIEDEMANN, Auss. Zw., I, 290.

COQUILLETT, Trans. Amer. Ent. Soc., XIV, 167.—N. M., Wash.

Montreal—Chagnon; Beulah, N. M.—Skinner.

var. *nigricauda* LOEW, Cent., VIII, 38.—Mass.

COQUILLETT, Trans. Amer. Ent. Soc., XIV, 167.—Canada.

- fulvicoma** COQUILLETT, Trans. Amer. Ent. Soc., xiv, 176.—Cal., Kans., Mont.
Described as a var. of *edititia*, but as the latter was incorrectly identified (Will., Biol., i, 278), I let this stand as a species.
- fulvohirta** WIEDEMANN, Dipt. Exot., 149; Auss. Zw., i, 308.—Ga.
MEIGEN, Syst. Besch., ii, 158, pl. xvii, f. 11 (*cypris*).—Europe, a mistake. [Wied.]
MACQUART, Dipt. Exot., ii, i, 69; Suppl., iv, 112, pl. x, f. 13 (the latter as *conifacies*).—Carolina; Virginia. [O. S.]
WALKER, Dipt. Saund., 177 (*separata*).—N. A. [O. S.]
COQUILLETT, Trans. Amer. Ent. Soc., xiv, 174.—N. J., Ga., Kans.
OSTEN SACKEN, Biologia, Dipt., i, 122, common in Texas.
WILLISTON, Biologia, Dipt., i, 280, oc. in Guerrero, Mex.
N. J.—Smith Cat.; Fla.—Johnson.
- fumida** COQUILLETT, Trans. Amer. Ent. Soc., xiv, 177.—Cal.
- funebria** MACQUART, Dipt. Exot., ii, i, 66, pl. xxi, f. 10.—San Domingo.
- fuscipennis** MACQUART, Hist. Nat. Dipt., i, 410.—N. A. Unrecognizable!
- galathea** OSTEN SACKEN, Biologia, Dipt., i, 123, pl. ii, f. 15.—Costa Rica.
- gemella** COQUILLETT, Trans. Amer. Ent. Soc., xix, 182.—San Diego Co., Cal.
- gorgon** FABRICIUS, Syst. Antl., 126.—West Indies.
WIEDEMANN, Auss. Zw., i, 303.—W. I.
OSTEN SACKEN, Biologia, Dipt., i, 119, *edititia* may be a synonym.
Porto Rico—Roeder and Coquillett.
- gracilis** MACQUART, Dipt. Exot., ii, i, 76, pl. xxi, f. 1.—Philadelphia.
Unrecognizable—O. S.
- halcyon** SAY, Long's Exped., App., 371; Compl. Works, i, 252 (*alcyon*).—N. W. Terr.
WIEDEMANN, Auss. Zw., i, 288, pl. iii, f. 6.
WILLISTON, Canad. Ent., 1879, xi, 216, notes.
VAN DER WULP, Tijdschr. v. Ent., xxv, 1882, 79, pl. ix, f. 1.—(Ariz.) May be *pacilogaster*.—O. S.
COQUILLETT, Trans. Amer. Ent. Soc., xiv, 181.—Kans., Nebr.
MACQUART, see *coryx*.
- hircina** COQUILLETT, Trans. Amer. Ent. Soc., xix, 182.—San Diego Co., Cal.
- hirsuta** WILLISTON, Biologia, Dipt., i, 279.—Guerrero, Mex.
- hypomelas** MACQUART, Dipt. Exot., ii, i, 76, pl. xxi, f. 1.—N. A.
VAN DER WULP, Tijdschr. v. Ent., xxv, 84, 1882, oc. Ariz.; Notes from the Leyden Mus., iv, 75, notes.
COQUILLETT, Trans. Amer. Ent. Soc., xiv, 166; xix, 169.—Can., Pa., Wis.
RILEY and HOWARD, Insect Life, ii, 353, record rearing from *Agrotis herilis* by Webster, giving figs. of larva, adult, etc.—Ind.
N. J.—Smith Cat.; Montreal—Chagnon; Beulah, N. M.—Skinner.
- impiger** COQUILLETT, see *edititia*.
- inaurata** COQUILLETT, see *Lepidanthrax*.
- incolta** COQUILLETT, Trans. Amer. Ent. Soc., xix, 181.—San Bernardino Co., Cal.
- inops** COQUILLETT, Trans. Amer. Ent. Soc., xiv, 169.—Cal. May be same as *costata*.
- keenii** COQUILLETT, see *clelia*.
- lacera** WIEDEMANN, Auss. Zw., ii, 633.—Oaxaca, Mex.
WILLISTON, Biologia, Dipt., i, 274, oc. in Guerrero, Mex. (*Stonyx*).
- lacunaris** COQUILLETT, Trans. Amer. Ent. Soc., xix, 185.—San Bernardino Co., Cal.

- latelimbata** BIGOT, Annales, 1892, 351 (*Hemipenthes*).—Carolina. St. Augustine, Fla.—Johnson (*Argyramaba*).
- ✓ **lateralis** SAY, Jour. Acad. Sci. Phil., III, 42; Compl. Works, II, 59.—Pa. and Md. WIEDEMANN, Auss. Zw., I, 318. MACQUART, Dipt. Exot., II, I, 60 (*bastardi*).—N. A. [O. S.] OSTEN SACKEN, Biologia, Dipt., I, 137.—White Mts., N. H. COQUILLETT, Trans. Amer. Ent. Soc., XIV, 166; XIX, 169.—N. J., Fla., Canada, Wash. WILLISTON, Biologia, Dipt., I, 283, oc. in Guerrero, Mex. Jamaica—Johnson.
- var. **fulvipes** COQUILLETT, Trans. Amer. Ent. Soc., XIV, 166; XIX, 178, note.—Ariz.
- lauta** COQUILLETT, see *Lepidanthrax*.
- lelia** WILLISTON, Biologia, Dipt., I, 274, pl. v, f. I (*Stonyx*).—Guerrero, Mex.
- lepidota** OSTEN SACKEN, Biologia, Dipt., I, 130, pl. II, f. 18.—N. Sonora, Mex. COQUILLETT, Trans. Amer. Ent. Soc., XIX, 185, oc. in Cal. WILLISTON, Biologia, Dipt., I, 281, note.
- leucothoa** WIEDEMANN, Auss. Zw., II, 638.—Mex. WILLISTON, Biologia, Dipt., I, 279.—Guerrero, Mex.
- levicula** COQUILLETT, Trans. Amer. Ent. Soc., XXI, 99.—S. Cal.
- livia** OSTEN SACKEN, Biologia, Dipt., I, 139, pl. III, f. 2.—N. Sonora, Mex.
- lucifer** FABRICIUS, Mantissa Ins., II, 329 (*Bibio*); Syst. Antl., 126.—West Indies. WIEDEMANN, Dipt. Exot., 142; Auss. Zw., I, 294.—W. I. BIGOT, in Sagra's Cuba, 794. WALKER, Dipt. Saund., 184 (*fumiflamma*).—Jamaica. OSTEN SACKEN, Biologia, Dipt., I, 116.—Cuantla, Mex. COQUILLETT, Trans. Amer. Ent. Soc., XIV, 180.—Cal., La. WILLISTON, Biologia, Dipt., I, 277, oc. in Atoyac, Mex. Porto Rico—Roeder; Jamaica and Fla.—Johnson.
- maria** WILLISTON, Biologia, Dipt., I, 283.—Guerrero, Mex.
- melasoma** VAN DER WULP, Tijdschr. v. Ent., XXV, 80, pl. IX, f. 2.—Ariz. OSTEN SACKEN, Biologia, Dipt., I, 140.
- melia** WILLISTON, Biologia, Dipt., I, 274, pl. v, f. I, 1a (*Stonyx*).—Rio Papagaio and Acapulco, Mex.
- mercedis** COQUILLETT, Trans. Amer. Ent. Soc., XIV, 166.—Cal.
- mira** COQUILLETT, Trans. Amer. Ent. Soc., XIV, 179; XIX, 180, note.—Cal. St. Augustine, Fla.—Johnson.
- miscella** COQUILLETT, Trans. Amer. Ent. Soc., XIV, 171.—Wash., Cal.
- niobilis** COQUILLETT, Trans. Amer. Ent. Soc., XXI, 100.—S. Cal.
- molitor** LOEW, Cent., VIII, 42.—Cal. COQUILLETT, Trans. Amer. Ent. Soc., XIV, 168.—Cal., Ariz. RILEY and HOWARD, Insect Life, II, 353, reared by Coquillett from noctuid pupae, perhaps *Taniocampa rufula* Grote.
- moneta** OSTEN SACKEN, Biologia, Dipt., I, 138.—N. Sonora, Mex.
- ✓ **morio** LINNÉ, Fauna Suecica, 1785 (*Musca*).—Europe. MEIGEN, Syst. Besch., II, 157, pl. XVII, f. 14 (*semiatra*). SAY, Jour. Acad. Sci. Phil., III, 42; Compl. Works, II, 58 (*morioides*).—Merrimac R., in Mo. [Coq.] WIEDEMANN, Auss. Zw., I, 309 (id.). SCHINER, Fauna Austr., I, 49. ? LOEW, Cent., VIII, 44 (*Hemipenthes seminigra*).—Saskatchewan R., Canada. [O. S., probably same as *morioides*.]

COQUILLETT, Trans. Amer. Ent. Soc., xxi, 98, oc. in Me., N. H., and Mont.; compared with European specimens.

Suwanee, Fla.—Johnson.

mucorea LOEW, Cent., viii, 43.—Nebr.

OSTEN SACKEN, Biologia, Dipt., i, 139, note.

muscaria COQUILLETT, Trans. Amer. Ent. Soc., xix, 178.—S. Cal.; referred to *mucorea* LOEW in Coquillett's earlier paper, xiv, 167.

nebuloso COQUILLETT, Trans. Amer. Ent. Soc., xiv, 165.—Wash.

nebulosa COQUILLETT, Trans. Amer. Ent. Soc., xxi, 99.—S. Cal.

nero FABRICIUS, Syst. Antl., 127.—W. I.

WIEDEMANN, Dipt. Exot., 149; Auss. Zw., i, 316.—W. I.

nigrofimbriata WILLISTON, Biologia, Dipt., i, 282.—Guerrero, Mex.

nudiuscula THOMSON, Eugenie Resa, 482.—Panama.

nugator COQUILLETT, Trans. Amer. Ent. Soc., xiv, 178; xix, 180, note.—Cal.

? BIGOT, Annales, 1892 (*bifenestratus*).—Cal. [Coq., with a doubt.]

var. **pallida** COQUILLETT, Trans. Amer. Ent. Soc., xiv, 179.—Cal., Ariz.

obscura COQUILLETT, Trans. Amer. Ent. Soc., xxi, 99.—S. Cal.

orbitalis WILLISTON, Biologia, Dipt., i, 281, pl. v, f. 4.—Guerrero, Tabasco, and Jalisco, Mex.

otiosa COQUILLETT, see *selene*.

palliat LOEW, Cent., viii, 32.—Ill.

? WALKER, Dipt. Saund., 187 (*incisa*).—N. A. [O. S., with a doubt.]

COQUILLETT, Trans. Amer. Ent. Soc., xiv, 176.—Ill., Nebr.

OSTEN SACKEN, Biologia, Dipt., i, 126, transl. orig. desc., etc.

WILLISTON, Biologia, Dipt., i, 281, oc. in Guerrero, Mex., and notes.

pallidula COQUILLETT, Trans. Amer. Ent. Soc., xxi, 99.—S. Cal.

paradoxa JENNICKE, Neue Exot. Dipt., 31, pl. ii, f. 16.—Mex.

VAN DER WULP, Tijdschr. v. Ent., xxi, 189, refers to *Diplocampta* SCHINER.

OSTEN SACKEN, West. Dipt., 237; Biologia, Dipt., i, 120.—Texas, Mex., Porto Rico.

WILLISTON, Biologia, Dipt., i, 278, oc. in Guerrero, Mex., and important notes. Porto Rico—Roeder.

parvicornis LOEW, Cent., viii, 36.—Ill.

OSTEN SACKEN, Biologia, Dipt., i, 128, notes.

COQUILLETT, Trans. Amer. Ent. Soc., xiv, 178.—La.

perplexa COQUILLETT, Trans. Amer. Ent. Soc., xiv, 176.—Cal.

pertusa LOEW, Cent., viii, 28.—N. M.

COQUILLETT, Trans. Amer. Ent. Soc., xiv, 179, transl. orig. desc.; xxi, 97, corrects errors in orig. desc.

plagosa COQUILLETT, see *rex*.

pleuralis WILLISTON, Biologia, Dipt., i, 282, pl. v, f. 5.—Guerrero, Mex.

pluricella WILLISTON, Biologia, Dipt., i, 277, pl. v, f. 3.—Vera Cruz, Mex.

pœcilogaster OSTEN SACKEN, Biologia, Dipt., i, 118, pl. ii, f. 12.—N. Sonora and Tehuacan, Mex.; Cal.

VAN DER WULP, see *halcyon*.

pretiosa COQUILLETT, Trans. Amer. Ent. Soc., xiv, 168; xix, 169, 179.—Cal.

proboscidea LOEW, see *Lepidanthrax*.

pullata COQUILLETT, Trans. Amer. Ent. Soc., xxi, 98.—S. Cal.

pusio MACQUART, Dipt. Exot., ii, 1, 76, pl. xxi, f. 1.—Cuba.

BIGOT, in Sagra's Cuba, 794.

quinquepunctata THOMSON, Eugenie Resa, 484.—Panama.

rex OSTEN SACKEN, Biologia, Dipt., i, pl. ii, f. 17.—N. Sonora, Mex.

COQUILLETT, Trans. Amer. Ent. Soc., xiv, 178 (*plagosa*).—Ariz. [Coq.]

- sabina* OSTEN SACKEN, *Biologia*, Dipt., 1, 137.—N. Sonora, Mex.
- sabulosa* COQUILLETT, *Trans. Amer. Ent. Soc.*, XIX, 186.—San Bernardino Co., Cal.; N. M.
- sackeniana* WILLISTON, *Biologia*, Dipt., 1, 276 (*Isopenthes*).—Guerrero, Mex.
- sagata* LOEW, *Cent.*, VIII, 34.—Metamoras, Mex.
- scitula* COQUILLETT, *Trans. Amer. Ent. Soc.*, XIV, 172.—Cal.
- scrobiculata* LOEW, see *alternata*.
- scylla* OSTEN SACKEN, *Biologia*, Dipt., 1, 132, pl. III, f. 1.—N. Sonora, Mex.
- selene* OSTEN SACKEN, *Biologia*, Dipt., 1, 122, pl. II, f. 14.—N. Sonora, Mex.
COQUILLETT, *Trans. Amer. Ent. Soc.*, XIV, 182 (*otiosa*).—Ariz. [Coq.]
- seminigra* LOEW, see *morio*.
- sinuosa* WIEDEMANN, *Dipt. Exot.*, 147; *Auss. Zw.*, 1, 301.—Ga.
MACQUART, *Dipt. Exot.*, II, 1, 67 (*nycthemera* HOFFMANNSEGG); 68 (*con-*
cisa); *Suppl.*, 1, 114 (*assimilis*).—Ga.; Car.; Galveston, Texas. [O. S.]
- OSTEN SACKEN, *Biologia*, Dipt., 1, 133.—N. Sonora, Mex.; Texas.
COQUILLETT, *Trans. Amer. Ent. Soc.*, XIV, 159 (*Hemipenthes*), ref.
N. J.—Smith Cat.; St. Augustine, Fla.—Johnson; Beulah, N. M.—Skinner.
- squamigera* COQUILLETT, *Trans. Amer. Ent. Soc.*, XIX, 181.—San Diego Co., Cal.
- stenozone* LOEW, see *alternata*.
- supina* COQUILLETT, *Trans. Amer. Ent. Soc.*, XIV, 169.—Cal.
- syrtis* COQUILLETT, *Trans. Amer. Ent. Soc.*, XIV, 173.—Cal.
COCKERELL, *Jour. N. Y. Ent. Soc.*, VI, 206, oc. at Agency, N. M.
- tantilla* COQUILLETT, *Trans. Amer. Ent. Soc.*, XIX, 184.—San Diego Co., Cal.
- tegminipennis* SAY, *Long's Exped.*, App., 371; *Compl. Works*, 1, 253.—N. W. Terr.
- WIEDEMANN, *Auss. Zw.*, 1, 289.
COQUILLETT, *Trans. Amer. Ent. Soc.*, XIV, 180.—Me., Mont., Ariz., Canada.
N. J.—Smith Cat.; Montreal—Chagnon; Fla., Johnson.
- var. *sackenii* COQUILLETT, *Trans. Amer. Ent. Soc.*, XIV, 180.—Ariz., Col.
- telluris* COQUILLETT, *Trans. Amer. Ent. Soc.*, XIX, 182.—Los Angeles Co., Cal.
- terrena* COQUILLETT, *Trans. Amer. Ent. Soc.*, XIX, 181.—Los Angeles and Kern Cos., Cal.
- translata* WALKER, *Dipt. Saund.*, 182.—West Indies.
- trifigurata* WALKER, *Trans. Ent. Soc.*, V, 285.—Hayti.
- trimaculata* WALKER, *List*, II, 250.—Jamaica.
OSTEN SACKEN, *Catalogue*, 237, note (*Exoprosopa*).
JOHNSON, *Proc. Acad. Nat. Sci. Phil.*, 1894, 274, gen. ref.; recognized from Jamaica.
- turbata* COQUILLETT, *Trans. Amer. Ent. Soc.*, XIV, 168.—Cal.
- vacans* COQUILLETT, *Trans. Amer. Ent. Soc.*, XIV, 168; XIX, 169, 179.—Wash.
- vana* COQUILLETT, *Trans. Amer. Ent. Soc.*, XIV, 173; XIX, 180, notes.—Cal.
- variata* COQUILLETT, *Trans. Amer. Ent. Soc.*, XIX, 184.—Los Angeles and Kern Cos., Cal.
- vasta* COQUILLETT, *Trans. Amer. Ent. Soc.*, XIX, 184.—San Diego Co., Cal.
- vestita* WALKER, *List*, II, 258.—Nova Scotia.
- vigilans* COQUILLETT, *Trans. Amer. Ent. Soc.*, XIV, 176; XIX, 18, placed as a syn. of *edititia*.—Kans., Col., Mont.
WILLISTON, *Biologia*, Dipt., 1, 278, not the same as *edititia*.
- vulpina* COQUILLETT, *Trans. Amer. Ent. Soc.*, XIX, 183.—San Bernardino Co., Cal.
- willistonii* COQUILLETT, *Trans. Amer. Ent. Soc.*, XIV, 181.—Cal., N. M., Col.
WILLISTON, *Canad. Ent.*, XI, 216 (n. sp. near *fuliginosa*).—Col. [Coq.]

PANTARBES.

- OSTEN SACKEN, West. Dipt., 254, 1877; Biologia, Dipt., I, 151, 1886.
capito OSTEN SACKEN, West. Dipt., 256.—Sonoma Co., Cal.
 Argus Mts., Cal.—Riley.
pusio OSTEN SACKEN, Biologia, Dipt., I, 153, pl. III, f. 15a-d.—N. Sonora, Mex.
willistoni OSTEN SACKEN, Biologia, Dipt., I, 153.—Ariz.

TRIPLASIUS.

- LOEW, Neue Beiträge, III, 7, 1855.
 WILLISTON, Dipt. of Death Val. Exped., 255, 1893.
novus WILLISTON, op. cit., 254.—Panamint Val., Cal.

ANISOTAMIA.

- MACQUART, Dipt. Exot., Suppl., III, 115, 1850.
 WILLISTON, Biologia, Dipt., I, 284, 1901.
fasciata WILLISTON, Biologia, Dipt., I, 284, pl. v, f. 6.—Jalisco, Mex.
valida WIEDEMANN, Auss. Zw., II, 636 (*Anthrax*).—Mex.
 MACQUART, Dipt. Exot., Suppl. IV, 114, pl. XI, f. 2 (*eximia*).—Mex.
 ROEDER, Wien. Ent. Zeit., v, 264 (*Oncodocera*).
 OSTEN SACKEN, Biologia, Dipt., I, 141, 142 (*Oncodocera*).—Guatemala.
 COQUILLET, Canad. Ent., XVIII, 87, transl. orig. desc.
 WILLISTON, Biologia, Dipt., I, 284, oc. in Guerrero and Yucatan, Mex.

BOMBYLIUS.

- LINNÉ, Fauna Suecica, 1918, 1761.
 LETREILLE, Hist. Nat. Crust. et Ins., III, 429, 1802; XIV, 298, 1804.
 FABRICIUS, Syst. Antl., 128, 1805.
 MEIGEN, Syst. Besch., II, 141, 1820.
 MACQUART, Hist. Nat. Dipt., I, 377, 1834.
 SCHINER, Fauna Austr., I, 58, 1862.
 OSTEN SACKEN, West. Dipt., 247, 1877, table of species.
æqualis FABRICIUS, Mantissa Ins., II, 365; Syst. Antl., 128.—N. A.
 OSTEN SACKEN, Cat., 238, note 158; is unrecognizable, etc.
albicapillus LOEW, Cent., x, 42.—Cal.
 OSTEN SACKEN, West. Dipt., 249, oc. in Marin and Sonoma Cos., and Yosemite Val., Cal. Quebec—Wulp.
albopenicillatus BIGOT, Annales, 1892, 363.—Mex.
 WILLISTON, Biologia, Dipt., I, 286.—Guerrero, Mex.
atriceps LOEW, Cent., IV, 49.—Fla., Va.
 MACQUART, Dipt. Exot. Suppl., v, 82 (*fulvibasis*); see O. S. Cat., note 159, p. 238.
 N. J.—Smith Cat.; Fla., several places—Johnson; N. Y., Conn.—O. S. Cat.
aurifer OSTEN SACKEN, West. Dipt., 249.—Webber L., Cal.
bicolor LOEW, Wien. Ent. Monatsch., v, 34.—Cuba.
cachinnans OSTEN SACKEN, West. Dipt., 250.—Sonoma Co., Cal.
cinereus BIGOT, Annales, 1892, 364.—Cal.
clio WILLISTON, Biologia, Dipt., I, 286.—Guerrero, Mex.
coquilletti WILLISTON, see *ater*, at end of this genus.
dolorosus WILLISTON, Biologia, Dipt., I, 286, pl. v, f. 8.—Guerrero, Mex.
hæmorrhoidicus LOEW, Cent., IV, 46.—Cuba.
helvus WIEDEMANN, Dipt. Exot., 164; Auss. Zw., I, 336.—Mex.
io WILLISTON, Biologia, Dipt., I, 285, pl. v, f. 7.—Guerrero, Mex.

- lancifer** OSTEN SACKEN, West. Dipt., 251.—San Francisco and Yosemite Val., Cal. N. J.—Smith Cat.; Fla.—Johnson.
- laticeps** BIGOT, Annales, 1892, 363.—Cal.
- major** LINNÉ, Fauna Suecica, 1918, 1761; Syst. Nat., 12th ed., II, 1009.—Europe. FABRICIUS, Spec. Ins., II, 472; Ent. Syst., IV, 407; Syst. Antl., 128. GMELIN, Syst. Nat., V, 2902. DEGEER, Mém. pour Serv. Hist. Nat. Ins., VI, 107, pl. XV, f. 10 (*variegatus*). MIKAN, Monogr. Bombyl. Bohemiæ, 35, pl. II, f. 4 (*sinuatus*). MEIGEN, Klassifikation, 179 (*sinuatus*); Syst. Besch., II, 144, with extensive bibliography. MACQUART, Hist. Nat. Dipt., I, 377. ZETTERSTEDT, Dipt. Scand., I, 188. SCHINER, Fauna Austr., I, 60. WIEDEMANN, Auss. Zw., I, 583 (*fratellus*).—Ga. MACQUART, Dipt. Exot., II, I, 98 (*vicinus*); Suppl., V, 82, pl. IV, f. 10 (*albipectus*).—Philadelphia; Baltimore. KIRBY, Fauna Boreali-Amer., Ins., 312 (*major*); reproduced in Canad. Ent., XIII, 166.—Northern N. A. LOEW, Neue Beiträge, III, 14, notes. HARRIS, Ins. Inj. Vegetation, 3d ed., 606, f. 263 (*æqualis*, preoc.). OSTEN SACKEN, West. Dipt., 248, oc. Cal.; relation of *fratellus* and *Bombylius* discussed, but not settled. COQUILLETT, Trans. Amer. Ent. Soc., XXI, 110, 1894, syn. of *fratellus*.—U. S. generally.
- metopium** OSTEN SACKEN, West. Dipt., 249.—Marin Co., Cal.
- mexicanus** WIEDEMANN, Dipt. Exot., 166; Auss. Zw., I, 338.—Mexico, and Savannah, Ga. MACQUART, Dipt. Exot., II, I, 99, pl. VI, f. 3 and VII, f. 3 (*philadelphicus*).—Philadelphia. [Loew, in O. S. Cat.] N. J.—Smith Cat. (*philadelphicus*); Fla.—Johnson; Middle and S. States—O. S.
- plumipes** DRURY, Illustr. of Nat. Hist., II, pl. XXXIX, f. 3.—Jamaica. WIEDEMANN, Auss. Zw., I, 351, describes from the plate.
- pulchellus** LOEW, Cent., IV, 47.—Ill. N. J.—Smith Cat.
- ✓ **pygmæus** FABRICIUS, Mantissa Ins., II, 367; Ent. Syst., IV, 411; Syst. Antl., 135.—N. A. OLIVIER, Encycl. Méth., I, 328. LAMARCK, Anim. sans vert., III, 407. WIEDEMANN, Auss. Zw., I, 351. KIRBY, Fauna Boreali-Amer., Ins., 312; reproduced in Canad. Ent., XIII, 166.—Northern N. A. Atlantic States and Br. Amer.; Va.—O. S. Cat. Montreal—Chagnon; Fla.—Johnson.
- ravus** LOEW, Cent., IV, 50.—Matamoras, Mex.
- recurvus** COQUILLETT, Proc. U. S. N. M., XXV, 100.—San Bernardino and San Diego Cos., Cal.
- semirufus** LOEW, Cent., X, 41.—San Domingo.
- syndesmus** COQUILLETT, see below.
- validus** LOEW, Cent., IV, 48.—Ill., Va. N. Y., Ga.—O. S. Montreal—Chagnon.
- varius** FABRICIUS, Syst. Antl., 132.—N. A. WIEDEMANN, Dipt. Exot., 163; Auss. Zw., I, 335.—N. A.

LOEW, Neue Beiträge, III, 29, notes.

Middle States—O. S.; N. J.—Smith Cat.; Fla.—Johnson.

ater COQUILLETT, Trans. Amer. Ent. Soc., XXI, 108 (*Thlipsogaster*).—La.

WILLISTON, Psyche, VIII, 331, refers to *Bombylius*, and changes name to *coquilletti* on account of preoccupation; oc. in Mex.; Biologia, Dipt., I, 286, oc. in Guerrero, Mex.

syndesmus COQUILLETT, Trans. Amer. Ent. Soc., XXI, 108 (*Thlipsogaster*).—S. Cal.

WILLISTON, Psyche, VIII, 331, oc. in Kans. (*Bombylius*).

Note.—As Mr. Coquillett assures me very positively that the two preceding species do not belong to *Bombylius*, while apparently also admitting that they differ from *Thlipsogaster*, I am compelled to place them provisionally as an appendix to *Bombylius*.

HETEROSTYLUM.

MACQUART, Dipt. Exot., Suppl. III, 35, 1848.

OSTEN SACKEN, West. Dipt., 256, 1877 (*Comastes*); Biologia, Dipt., I, 151, 1886 (id.).

ferrugineum FABRICIUS, Syst. Antl., 132 (*Bombylius*).—West Indies.

WIEDEMANN, Auss. Zw., I, 334 (id.).—West Indies? and Brazil.

OSTEN SACKEN, Cat., 238, oc. at St. Thomas, and gen. ref. (*Comastes*).

pallipes BIGOT, Annales, 1892, 361.—Hayti.

robustum OSTEN SACKEN, West. Dipt., 256 (*Comastes*).—Texas, Mexico.

rufum OLIVIER, Encycl. Méth., I, 327 (*Bombylius*).—West Indies.

WIEDEMANN, Zool. Mag., III, 46; Dipt. Exot., 164; Auss. Zw., I, 335 (all *Bombylius basilaris*).—Brazil.

LOEW, Neue Beitr., III, 29, syn., etc. (*Comastes*).

sackeni WILLISTON, Dipt. of Death Val. Exped., 255 (*Comastes*).—Argus Mts., Cal.

ANASTÆCHUS.

OSTEN SACKEN, West. Dipt., 251, 1877.

nitidulus FABRICIUS, Ent. Syst., IV, 409; Syst. Antl., 132 (*Bombylius*).—Europe.

MEIGEN, Klassifikation, 189; Syst. Besch., II, 154 (id.).

SCHINER, Fauna Austr., I, 63 (*Systæchus*).

OSTEN SACKEN, West. Dipt., 252 (*barbatus*).—Cheyenne, Wyo.; Cal.; Col.; Mass.

COQUILLETT, Trans. Amer. Ent. Soc., XXI, 110, syn. of *barbatus*—compared with European specimens.

Beulah, N. M.—Skinner (*barbatus*).

SYSTÆCHUS.

LOEW, Neue Beitr., III, 34, 1855.

OSTEN SACKEN, West. Dipt., 250, 1877.

RILEY, 9th Mo. Report, 96, undet. larva in egg-masses of the Rocky Mountain Locust; figured, etc.

candidulus LOEW, Cent., IV, 51.—Wis.

OSTEN SACKEN, West. Dipt., 253.—Ill. and Kans.

oreas OSTEN SACKEN, West. Dipt., 254.—Webber L., Cal.

RILEY, PACKARD and THOMAS, 2d Rept. of the U. S. Entom. Commission, 266, larvæ in egg-pods of locusts; col. figs., etc.—West. Mississippi Val. *vulgaris* LOEW, Cent., iv, 52.—Nebr.

OSTEN SACKEN, West. Dipt., 253.—Col., Utah, N. Y.

N. J.—Smith Cat.; Montreal—Chagnon.

AMPHICOSMUS.

COQUILLET, West. Amer. Scientist, 1891, 219.

cincturus WILLISTON, Biologia, Dipt., i, 296, pl. v, f. 11, 11a.—Guerrero, Mex.

elegans COQUILLET, West. Amer. Scientist, 1891, 220.—Cal.

EXEPACMUS.

COQUILLET, Trans. Amer. Ent. Soc., xxi, 101, 1894.

johnsoni COQUILLET, Trans. Amer. Ent. Soc., xxi, 101.—Cal.

PLOAS.

LATREILLE, Dist. d'Hist. Nat., xxiv, 1804; Hist. Nat. Crust. et Ins., xiv, 299, 1804.

MEIGEN, Illig. Mag., ii, 268, 1803 (*Conophorus*); Syst. Besch., ii, 174, 1820.

SCHINER, Fauna Austr., i, 65, 1862 (states in footnote that *Ploas* was used by Latreille before 1803; I can find no indication of an earlier date than 1804).

OSTEN SACKEN, West. Dipt., 360, 1877, table of species.

COQUILLET, Trans. Amer. Ent. Soc., xxi, 101, 1894, table of species.

amabilis OSTEN SACKEN, West. Dipt., 261.—Yosemite Val., Cal.

atratura LOEW, Cent., x, 44.—Cal.

fenestrata OSTEN SACKEN, West. Dipt., 260.—Sonoma Co., Crafton, and San Rafael, Cal. Death Val., Cal.—Riley.

limbata LOEW, Cent., viii, 51.—N. M.

melanocerata BIGOT, Annales, 1892, 361 (*Conophorus*).—Cal.

nigripennis LOEW, Cent., x, 45.—Cal.

obesula LOEW, Cent., x, 46.—Cal.

pictipennis MACQUART, Dipt. Exot., ii, i, 107, pl. ix, f. 3.—Carolina.

rufula OSTEN SACKEN, West. Dipt., 261.—San Geronimo, Cal.

serrata COQUILLET, Trans. Amer. Ent. Soc., xxi, 102.—S. Cal.

GEMINARIA.

COQUILLET, Trans. Amer. Ent. Soc., xxi, 109, 1894.

pellucida COQUILLET, op. cit., 109.—S. Cal.

LORDOTUS.

LOEW, Cent., iv, 53, 1863.

COQUILLET, Entomologica Amer., iii, 115, 1888, table of species; West Amer. Scientist, 1891, 197, table of species; Trans. Amer. Ent. Soc., xxi, 109, table of species, 1894.

OSTEN SACKEN, Biologia, Dipt., i, 154, 1886.

apicula COQUILLET, Entomol. Amer., iii, 116.—Cal.

buceros COQUILLET, Trans. Amer. Ent. Soc., xxi, 110.—S. Cal.

canalis COQUILLET, Entom. Amer., iii, 115.—Cal.

- diversus** COQUILLET, West Amer. Scientist, 1891, 198.—Cal.
 COCKERELL, Jour. N. Y. Ent. Soc., vi, 206, oc. at Agency, N. M.
gibbus LOEW, Cent., iv, 53.—Matamoras, Mex.
 JÆNNICKE, Neue Exot. Dipt., 39 (*Adelidea flava*).—Mex. [O. S.]
 OSTEN SACKEN, West. Dipt., 258; Biologia, Dipt., i, 154, notes.—West. States; N. Sonora and Tehuacan, Mex.
 WILLISTON, Biologia, Dipt., i, 288, notes.
juncus COQUILLET, West Amer. Scientist, 1891, 198.—Cal.
miscellus COQUILLET, Entom. Amer., iii, 116.—Cal.
? planus OSTEN SACKEN, West. Dipt., 258.—Marin Co., Cal. Query by O. S.
puella WILLISTON, Kans. Univ. Quart., ii, 64.—Cal.
pulcherrimus WILLISTON, Kans. Univ. Quart., ii, 64.—Nev.
sororcula WILLISTON, Dipt. of Death Valley Exped., 255.—Coso Val. and Kern Co., Cal.
zona COQUILLET, Entom. Amer., iii, 116.—Cal.

ONCODOCERA.

- MACQUART, Dipt. Exot., ii, 1, 83, 1840 (*Ogcodocera*).
 COQUILLET, Canad. Ent., xviii, table of species, 1886.
 OSTEN SACKEN, Biologia, Dipt., i, 141, 1886.
 WILLISTON, Biologia, Dipt., i, 284, 1901, amends to exclude *valida*.
analis WILLISTON, Biologia, Dipt., i, 283.—Guerrero, Mex.
leucoprocta WIEDEMANN, Auss. Zw., i, 330 (*Mulio*); ii, 639 (*Anthrax terminalis*).—No locality; Mex. [O. S.]
 MACQUART, Dipt. Exot., ii, 1, 84, pl. xv, f. 1 (*Ogcodocera dimidiata*).—N. A. [O. S.]
 COQUILLET, Canad. Ent., xviii, 87.—N. C., Fla.
 ROEDER, Wien. Ent. Zeit., v, 263.
 OSTEN SACKEN, Biologia, Dipt., i, 142, oc. in S. States and Mex.
 N. J.—Smith Cat.; Suwanee, Fla.—Johnson.
valida WIEDEMANN, see *Anisotamia*.

ACREOTRICHUS.

- MACQUART, Dipt. Exot., Suppl., iv, 121, 1849.
 COQUILLET, Psyche, Aug., 1895, 272
americanus COQUILLET, Psyche, Aug., 1895, 273.—Wash.

PHTHIRIA.

- MEIGEN, Illig. Mag., ii, 268, 1803; Syst. Besch., ii, 165, 1820.
 MACQUART, Hist. Nat. Dipt., i, 392, 1834; Dipt. Exot., ii, 1, 114, 1840 (*Cyclorhynchus*). [Will.]
 SCHINER, Fauna Austr., i, 66, 1862.
 JÆNNICKE, Neue Exot. Dipt., 43, 1867 (*Pacilognathus*). O. S.
 COQUILLET, Trans. Amer. Ent. Soc., xxi, 102, table of species.
 WILLISTON, Biologia, Dipt., i, 288, 1901, table of C. A. species; doubts distinctness of *Acreotrichus*.
albida WIEDEMANN, Auss. Zw., i, 356.—Brazil.
 MACQUART, Dipt. Exot., ii, 1, 115.—Brazil.
 WILLISTON, Biologia, Dipt., i, 290.—Guerrero, Mex.
aldrichi JOHNSON, Psyche, 1903, 184.—Caldwell, Ida.
alterans WILLISTON, Biologia, Dipt., i, 291.—Guerrero, Mex.
cingulata LOEW, Linnæa Ent., i, 383.—Oaxaca, Mex.

- OSTEN SACKEN, *Biologia*, Dipt., 1, 156, quotes orig. desc.
 ? WILLISTON, *Biologia*, Dipt., 1, 290, doubtful oc. in Guerrero, Mex.
 consors OSTEN SACKEN, *Biologia*, Dipt., 1, 155.—Durango, Mex.
 WILLISTON, *Biologia*, Dipt., 1, 289, oc. in Magdalena Mts., N. M., and notes.
 coquilletti JOHNSON, *Canad. Ent.*, 1902, 240.—Jamesburg and Riverton, N. J.
 cyanoceps JOHNSON, *Psyche*, 1903, 184.—Cohasset, Mass.
 diversa COQUILLET, *Trans. Amer. Ent. Soc.*, xxi, 103.—S. Cal.
 COCKERELL, *Jour. N. Y. Ent. Soc.*, vi, 206, oc. at Agency, N. M.
 dolorosa WILLISTON, *Biologia*, Dipt., 1, 290.—Guerrero, Mex.
 egerminans LOEW, *Cent.*, x, 47.—Cal.
 floralis COQUILLET, *Trans. Amer. Ent. Soc.*, xxi, 103.—S. Cal.
 humilis OSTEN SACKEN, *West. Dipt.*, 264.—Sonoma Co., Cal.
 COQUILLET, *Trans. Amer. Ent. Soc.*, xxi, 104, desc. of female; no locality.
 notata LOEW, *Cent.*, iii, 19.—Cal.
 pulchella WILLISTON, *Biologia*, Dipt., 1, 289.—Guerrero, Mex.
 punctipennis WALKER, *List*, ii, 294.—Ga.
 St. Augustine, Fla.—Johnson.
 quinquenotata JOHNSON, *Psyche*, 1903, 185.—Grand Junction, Utah.
 similis COQUILLET, *Trans. Amer. Ent. Soc.*, xxi, 103.—S. Cal.
 WILLISTON, *Biologia*, Dipt., 1, 289, note.
 scolopax OSTEN SACKEN, *West. Dipt.*, 263.—Manitou, Col.
 sororia WILLISTON, *Biologia*, Dipt., 1, 291.—Guerrero, Mex.
 sulphurea LOEW, *Cent.*, ii, 18.—N. J.
 OSTEN SACKEN, *West. Dipt.*, 262.—Tex., Col., Ill.
 COCKERELL, *Psyche*, Jan., 1895, 188.—N. M.
 Fla., several places—Johnson.
 thlipsomyzoides JÄNNICKE, *Neue Exot. Dipt.*, 43, pl. 1, f. 11 (*Pacilognathus*).—Mex.
 WILLISTON, *Biologia*, Dipt., 1, 291.—Guerrero, Mex.

LEPIDOPHORA.

- WESTWOOD, *London and Edinb. Philos. Mag.*, 1835.
 OSTEN SACKEN, *Biologia*, Dipt., 1, 160, table of known species.
 ægeriiformis WESTWOOD, *London and Edinb. Philos. Mag.*, 1835, vi, 447.
 MACQUART, *Dipt. Exot., Suppl.*, 1, 115, pl. x, f. 1.—Ga.
 GRAY, in Griffith's *Animal Kingdom*, xv, Ins. 2, 779, pl. cxxvi, f. 6 (*Ploas*).
 Ga., Ill., Kans.—O. S. Cat.; N. J.—Smith Cat.; Georgiana, Fla.—Johnson.
 appendiculata MACQUART, *Dipt. Exot., Suppl.* 1, 118, pl. xx, f. 4 (*Toxophora*).—Galveston, Tex.; may be the male of Wiedemann's *Toxophora lepidocera* (*Auss. Zw.*, 1, 360, pl. v, f. 4; no locality).
 ? vetusta WALKER, *Trans. Ent. Soc. Lond.*, 1857, 145.—Brazil.
 ? OSTEN SACKEN, *Biologia*, Dipt., 1, 160, doubtfully rec. from Mex. and Guat.
 ? WILLISTON, *Biologia*, Dipt., 1, 294, same species in Vera Cruz.

SPARNOPOLIUS.

- LOEW, *Neue Beitr.*, iii, 43, 1855.
 apertus MACQUART, *Dipt. Exot., Suppl.*, ii, 54 (*Bombylius*).—Guadeloupe.
 OSTEN SACKEN, *Cat.*, 43, note.

brevicornis LOEW, Cent., x, 43.—Texas.

OSTEN SACKEN, West. Dipt., 259.—Waco, Tex.

coloradensis GROTE, Proc. Ent. Soc. Phil., vi, 445.—Col.

OSTEN SACKEN, West. Dipt., 259, male.—Colorado Spr., Col.

Beulah, N. M.—Skinner.

cumatilis GROTE, Proc. Ent. Soc. Phil., vi, 445.—Col.

diversus WILLISTON, Biologia, Dipt., i, 287.—Guerrero, Mex.

fulvus WIEDEMANN, Dipt. Exot., 172 (*Bombylius*); Auss. Zw., i, 347 (id.).—N. A.

MACQUART, Dipt. Exot., ii, 1, 103 (*Bombylius theminieri* and *brevirostris*).—Carolina. [O. S.]

LOEW, Neue Beitr., iii, 43.

WILLISTON, Biologia, Dipt., i, 287, notes.

N. J.—Smith Cat.; Agency, N. M.—Cockerell; Atlantic States—O. S. Cat.

ECLIMUS.

LOEW, Stett. Ent. Zeit., 1884, 154; Deutsche Ent. Zeit., 1876, 209.

BIGOT, Bull. Soc. Ent. France, 1875, p. 196 (*Thevenimyia*); Annales, 1892, 339 (*Thevenetimyia*).

OSTEN SACKEN, West. Dipt., 268, 1877 (*Epibates*).

WILLISTON, Kans. Univ. Quart., ii, 65, 1893, syn.

auratus WILLISTON, Kans. Univ. Quart., ii, 66.—Wash.

auripilus OSTEN SACKEN, Biologia, Dipt., i, 161, pl. iii, f. 5.—Durango, Mex.

? **auripilus** BIGOT, Annales, 1892, 372 (*Amictus*).—Wash.

COQUILLETT, Trans. Amer. Ent. Soc., xxi, 90, gen. ref., with a doubt.

californicus BIGOT, Bull. Soc. Ent. France, 1875, 197 (*Thevenimyia*).—Cal.

fascipennis WILLISTON, Biologia, Dipt., i, 295, pl. v, f. 9.—Guerrero, Mex.

funestus OSTEN SACKEN, West. Dipt., 271 (*Epibates*).—White Mts., N. H.

harrisii OSTEN SACKEN, West. Dipt., 272 (*Epibates*).—"Atl. States?"

lotus WILLISTON, Kans. Univ. Quart., ii, 66.—Cal.

lucifer OSTEN SACKEN, West. Dipt., 271 (*Epibates*).—Vancouver Id., Br. Col.

magnus OSTEN SACKEN, West. Dipt., 272 (*Epibates*).—Vancouver Id., Br. Col.

marginatus OSTEN SACKEN, West. Dipt., 272 (*Epibates*).—San Francisco, Cal.

melanopogon BIGOT, Annales, 1892, 370 (*Thevenetimyia*).—Wash.

melanosus WILLISTON, Kans. Univ. Quart., ii, 65.—Cal.

muricatus OSTEN SACKEN, West. Dipt., 272 (*Epibates*).—Sierra Nevada Mts., Cal.

WILLISTON, Kans. Univ. Quart., ii, 65, supposed female of this species.—Cal., Wash.

Rocky Mts., Col., 9000 ft.—O. S. Cat.

niger MACQUART, Hist. Nat. Dipt., i, 390 (*Apatomyza*); Dipt. Exot., ii, i, iii, pl. xi, f. i (id.).—Ga.

WALKER, List, ii, 296 (*Cyllenia agiale*); iv, 1154, syn.—Ga.

OSTEN SACKEN, West. Dipt., 273 (*Epibates*); Cat., 239, correction (id.).

ostensackenii BURGESS, Proc. Bost. Soc. Nat. Hist., 1878, 323, pl. ix, f. i (*Epibates*).—S. Col., Kans.

quadratus WILLISTON, Biologia, Dipt., i, 295.—Guerrero, Mex.

sodalis WILLISTON, Kans. Univ. Quart., ii, 65.—Wash.

SPHENOIDOPTERA.

WILLISTON, Biologia, Dipt., i, 295, 1901.

varipennis WILLISTON, op. cit., 296, pl. v, f. 10.—Guerrero, Mex.

DESMATONEURA.

WILLISTON, Kans. Univ. Quart., III, 267, 1895.

argentifrons WILLISTON, op. cit., III, 267.—Albuquerque, N. M.

EUCESSIA.

COQUILLET, Canad. Ent., XVIII, 82, 1886.

WILLISTON, Synops. Fam. and Gen., 1888, 37, quoted.

rattus OSTEN SACKEN, Biologia, Dipt., I, 147 (*Aphabantus*).—Tex.

COQUILLET, Trans. Amer. Ent. Soc., XXI, 105, gen. ref.

rubens COQUILLET, Canad. Ent., XVIII, 82.—Cal.

EPACMUS.

OSTEN SACKEN, Biologia, Dipt., I, 142, 1886, change of name.

LOEW, Cent., x, 40, 1872 (*Leptochilus*, preoc.).

COQUILLET, Canad. Ent., XXIV, 9, 1892, table of species; Trans. Amer. Ent. Soc., XXI, 90 and 104, notes and corrections, 1894.

WILLISTON, Biologia, Dipt., I, 285, 1901, considers hardly distinct from *Aphabantus*.

modestus LOEW, Cent., x, 40 (*Leptochilus*).—Texas.

OSTEN SACKEN, Biologia, Dipt., I, 142, oc. in Tehuacan and N. Sonora, Mex., and notes.

WILLISTON, Biologia, Dipt., I, 284, note.

nebritus COQUILLET, Trans. Amer. Ent. Soc., XXI, 104.—S. Cal.

COQUILLET, Canad. Ent., XVIII, 83 (*Leptochilus modestus* Lw.).—Cal., Tex. [Coq.]

rufolimbatus BIGOT, Annales, 1892, 359.—Cal.

COQUILLET, Trans. Amer. Ent. Soc., XXI, 104, may be an *Aphabantus*.

APHÆBANTUS.

LOEW, Cent., x, 39, 1872.

OSTEN SACKEN, West. Dipt., 245, 1877 (*Triodites*). [Coq. and O. S.]

OSTEN SACKEN, Biologia, Dipt., I, 143-146, full discussion; table of species, 1886.

COQUILLET, Canad. Ent., XVIII, 84, table of species, 1886; West. Amer. Scientist, 1891, 256, table of species; Trans. Amer. Ent. Soc., XXI, 104, definition, table, etc., 1894.

WILLISTON, Biologia, Dipt., I, 285, 1901, notes.

abnormis COQUILLET, West. Amer. Scientist, 1891, 262.—Orange Co., Cal.

bisulcus OSTEN SACKEN, Biologia, Dipt., I, 148.—N. Sonora, Mex.

brevistylus COQUILLET, West. Amer. Sci., 1891, 264.—Los Angeles Co., Cal.

capax COQUILLET, West. Amer. Scientist, 1891, 261.—San Diego Co., Cal.

carbonarius OSTEN SACKEN, Biologia, Dipt., I, 149.—Wash.; W. Kans.; N. Sonora, Mex.

catulus COQUILLET, Trans. Amer. Ent. Soc., XXI, 107.—S. Cal.

cervinus LOEW, Cent., x, 39.—Texas.

COQUILLET, Canad. Ent., XVIII, 1886, 86.—Cal., Ariz., Col., Tex.

OSTEN SACKEN, Biologia, Dipt., I, 144, 148, notes.

See *pavidus*.

concinus COQUILLET, Canad. Ent., XXIV, 10 (*Epacmus*).—San Diego Co., Cal.

conurus OSTEN SACKEN, Biologia, Dipt., I, 148.—Cal., Kern Co.

WILLISTON, Biologia, Dipt., I, 285, oc. in Guerrero, and notes.

- cyclops* OSTEN SACKEN, *Biologia*, Dipt., 1, 146, pl. III, f. 4 a-c.—N. Sonora, Mex.
desertus COQUILLETT, *West. Amer. Scientist*, 1891, 261.—San Diego Co., Cal.
fucatus COQUILLETT, *Trans. Amer. Ent. Soc.*, XXI, 108.—S. Cal.
fumidus COQUILLETT, *West. Amer. Scientist*, 1891, 263.—San Bernardino Co., Cal.
fumosus COQUILLETT, *Canad. Ent.*, XXIV, 11 (*Epacmus*).—San Diego Co., Cal.
hirsutus COQUILLETT, *Canad. Ent.*, XVIII, 85.—Cal.
interruptus COQUILLETT, *West. Amer. Scientist*, 1891, 259.—Los Angeles Co., Cal.
leviculus COQUILLETT, *Trans. Amer. Ent. Soc.*, XXI, 107.—S. Cal.
litus COQUILLETT, *Canad. Ent.*, XVIII, 84.—Cal.
marcidus COQUILLETT, *West. Amer. Scientist*, 1891, 258.—San Diego and Kern Cos., Cal.
 COQUILLETT, *West. Amer. Scientist*, 1891, 262 (*squamosus*); *Trans. Amer. Ent. Soc.*, XXI, 105, syn.—Orange Co., Cal.
mixtus COQUILLETT, *West. Amer. Scientist*, 1891, 259.—San Bernardino Co., Cal.
mus OSTEN SACKEN, *West. Dipt.*, 245 (*Triodites*).—Salt Lake, Utah; Sonoma Co. and Shasta District, Cal.
 RILEY, PACKARD and THOMAS, 2d Rept. U. S. Entomol. Comm., 1880, 262–269, pl. XVI, col. figs.; life history, etc. The larvæ live in egg-pods of locust in the West (*Triodites*).
 OSTEN SACKEN, *Biologia*, Dipt., 1, 147, oc. and notes.—N. Sonora; West. U. S.
 COQUILLETT, *Canad. Ent.*, XVIII, 85.—Cal., Ariz.
pavidus COQUILLETT, *West. Amer. Scientist*, 1891, 257; *Canad. Ent.*, XVIII, 87, as a var. of *cervinus*.—Los Angeles, San Diego and Kern Cos., Cal.
pellucidus COQUILLETT, *Canad. Ent.*, XXIV, 10 (*Epacmus*).—Los Angeles Co., Cal.
peodes OSTEN SACKEN, *Biologia*, Dipt., 1, 149.—N. Sonora, Mex.
rattus OSTEN SACKEN, see *Eucessia*.
scriptus COQUILLETT, *West. Amer. Scientist*, 1891, 260.—S. Cal.
squamosus COQUILLETT, see *marcidus*.
tardus COQUILLETT, *West. Amer. Scientist*, 1891, 258.—Los Angeles, San Diego and Kern Cos., Cal.
transitus COQUILLETT, *Canad. Ent.*, XVIII, 83 (*Epacmus*).—Cal.
varius COQUILLETT, *West. Amer. Scientist*, 1891, 256.—San Diego Co., Cal.
vittatus COQUILLETT, *Canad. Ent.*, XVIII, 86.—Cal.
 ? WILLISTON, *Dipt. of Death Val. Exped.*, 254, doubtful oc. in Panamint Val., Cal.
vulpecula COQUILLETT, *Trans. Amer. Ent. Soc.*, XXI, 107.—S. Cal.

METACOSMUS.

- COQUILLETT, *West. Amer. Scientist*, 1891, 220.
exilis COQUILLETT, *West. Amer. Sci.*, 1891, 221.—Orange Co., Cal.

DESMATOMYIA.

- WILLISTON, *Kans. Univ. Quart.*, III, 268, 1895.
anomala WILLISTON, op. cit.—Garden of the Gods, Col.

PARACOSMUS.

- OSTEN SACKEN, *West. Dipt.*, 262, 1877, name changed.
 LOEW, *Cent.*, x, 48, 1872 (*Allocotus*, preoc.).

- edwardsii* LOEW, Cent., x, 48 (*Allocotus*).—San Francisco, Cal.
insolens COQUILLETT, West. Amer. Scientist, 1891, 221.—Los Angeles and San Diego Cos., Cal.
morrisoni OSTEN SACKEN, Biologia, Dipt., 1, 155.—N. Sonora, Mex.

SYSTROPUS.

- WIEDEMANN, Dipt. Nov. Gen., 1820; Auss. Zw., 1, 359, 1828.
 LATREILLE, Fam. Naturelles, 1825, 496 (*Cephenus*).
 MACQUART, Hist. Nat. Dipt., 1, 391, 1834.
 KARSCH, Zeitsch. Berl. Ent. Ges., 1881, 657, attempts to revive *Cephenus*, to include all the American species. The characters do not seem sufficient.
 OSTEN SACKEN, Biologia, Dipt., 1, 157, 1886, notes, and table of American species.
 WANDOLLECK, Entom. Nachrichten, XXIII, 198, gives characters of *Cephenus*; I have not seen this paper.
 TOWNSEND, Trans. Amer. Ent. Soc., XXVII, 160, 1901, table of species.
 WILLISTON, Biologia, Dipt., 1, 292, partial table of species, 1901.
ammophiloides TOWNSEND, Trans. Amer. Ent. Soc., XXVII, 1901, 159.—Organ Mts., N. M.
angulatus KARSCH, Zeitsch. Berl. Ent. Ges., 1881, 657 (*Cephenus*).—Dallas, Tex.
cerdo OSTEN SACKEN, Biologia, Dipt., 1, 158.—Panama.
dolorosus WILLISTON, Biologia, Dipt., 1, 293.—Jalisco and Yucatan, Mex.
fœnoides WESTWOOD, Guérin's Mag. Zool., 1842; Ins., pl. xc, text p. 3 (*fænoides*); Trans. Ent. Soc. Lond., 1876, 578 (*fænoides*).—Mex.
 COSTA, Annuario Mus. Zool. R. Univ. Napoli, 1864, 151 (*funereus*). [O. S. Cat.]
imbecillus KARSCH, Zeitsch. Berl. Ent. Ges., 1881, 658 (*Cephenus*).—Ga.
infuscatus KARSCH, Zeitsch. Berl. Ent. Ges. 1881, 657 (*Cephenus*).—Dallas, Texas.
lugubris OSTEN SACKEN, Biologia, Dipt., 1, 159.—Mex.
macer LOEW, Cent., IV, 56.—Wis., Pa.
 WALSH, Proc. Boston Soc. Nat. Hist., IX, 300, 1864, reared from pupa of *Limacodes* (*Conops*).
 OSTEN SACKEN, West. Dipt., 265, notes.
 N. J.—Smith Cat.; Atl. States to Kans.—O. S. Cat.
Note.—Prof. Otto Lugger reared it from *Limacodes* in Minn.; he gave me a bred specimen.
pulcher WILLISTON, Biologia, Dipt., 1, 294.—Guerrero, Mex.
quadripunctatus WILLISTON, Biologia, Dipt., 1, 293.—N. Yucatan.
rogersi OSTEN SACKEN, Biologia, Dipt., 1, 158.—Costa Rica.
 WILLISTON, Biologia, Dipt., 1, 293, note.
rufiventris OSTEN SACKEN, Biologia, Dipt., 1, 159.—Mex.
sallei COSTA, Annuario d. Mus. Zool. R. Univ. d. Napoli, 1864, 151.—Mex.
 OSTEN SACKEN, Cat., 265, quotes diagnosis; Biologia, Dipt., 1, 159, oc. in Mex.
similis WILLISTON, Biologia, Dipt., 1, 294.—Guerrero, Mex.

DOLICHOMYIA.

- WIEDEMANN, Auss. Zw., II, 642, 1830.
 LOEW, Dipterenfauna Südafrika's, 175, note, 1860.

SCHINER, Novara, 134, 1868.

WILLISTON, Kans. Univ. Quart., III, 175, 1894.

gracilis WILLISTON, Kans. Univ. Quart., III, 41.—Estes Park, Col.

GERON.

MEIGEN, Syst. Besch., II, 223, 1820.

SCHINER, Fauna Austr., I, 68, 1862.

COQUILLETT, Trans. Amer. Ent. Soc., XXI, III, table of species, 1894.

MIK, Wien. Ent. Zeit., XIV, 106, rearing a European species from a Pyralid larva.

calvus LOEW, Cent., IV, 54, female; IX, 76, male (*macropterus*).—N. Y.; Geneseo, N. Y.

COQUILLETT, Trans. Amer. Ent. Soc., XXI, 110, syn. N. J.—Smith Cat.

capax COQUILLETT, Canad. Ent., XXIV, 126.—Cal. N. J.—Smith Cat.

cinctura COQUILLETT, Trans. Amer. Ent. Soc., XXI, III.—Cal.

fasciola COQUILLETT, Canad. Ent., XXIV, 125.—Cal., Merced Co.

holosericeus WALKER, List, II, 295.—Ga.

hybos COQUILLETT, Trans. Amer. Ent. Soc., XXI, 112 (*hybus*).—S. Cal.

insularis BIGOT, in Sagra's Cuba, 792 (*Bombylius*).—Cuba.

rufipes MACQUART, Dipt. Exot., Suppl., I, 119.—Yucatan.

WILLISTON, Biologia, Dipt., I, 292, oc. in Guerrero, Mex.

senilis FABRICIUS, Ent. Syst., IV, 411 (*Bombylius*); Syst. Antl., 135 (id.).—West Indies.

WIEDEMANN, Auss. Zw., I, 357.

MACQUART, Dipt. Exot., Suppl., I, 119.

LOEW, Cent., IX, 77 and 78 (*vitripennis* and *albidipennis*).—Mid. States; Cal. [Coq., Tr. Am. Ent. Soc., XXI, 110.]

WILLISTON, Dipt. St. Vincent, 306, pl. XI, f. 81.—St. Vincent, W. I.

N. J.—Smith Cat.; Jamaica—Johnson.

sigma COQUILLETT, Proc. U. S. N. M., XXV, 101.—Ala., Col.

subauratus LOEW, Cent., IV, 55; see also IX, 77, note.—Pa. N. J.—Smith Cat.

trochilides WILLISTON, Biologia, Dipt., I, 292.—Guerrero, Mex.

trochilus COQUILLETT, Trans. Amer. Ent. Soc., XXI, III.—S. Cal.

TOXOPHORA.

MEIGEN, Illig. Mag., II, 270, 1802; Klassifikation, 1804; Syst. Besch., II, 178, 1820.

SCHINER, Fauna Austr., I, 69, 1862.

COQUILLETT, Entomol. Amer., I, 1886, 221, table of species; West. Amer. Sci., 1891, 199, table of species.

GLOVER, Entomol. Rept., 1866, 45, reports rearing *Toxophora* sp. from mud "pot" of *Eumenes* sp.; loc. cit., 1870, 78, same with bad figs.; 1877, 105, refers to European sp. preying upon *Bembex*.

amphitea WALKER, List, II, 298.—St. John's Bluff, Fla.

OSTEN SACKEN, West. Dipt., 267.—Middle and Southern States.

COQUILLETT, Entomol. Amer., I, 222, note.—Fla.

WILLISTON, Biologia, Dipt., I, 294, oc. in Guerrero, Mex.

N. J.—Smith Cat.; Fla., several places—Johnson.

fulva OSTEN SACKEN, West. Dipt., 267.—Ga. Also Cat. 238, note.

Fla.—Johnson.

leucopyga WIEDEMANN, Auss. Zw., I, 361.—No locality.

MACQUART, Dipt. Exot., II, 1, 117.—Carolina.

GRAY, Griffith's Anim. Kingd., xv, Ins., II, 779 (*fulva*). [O. S.]

WALKER, List, II, 298, note.

maxima COQUILLET, Entomol. Amer., I, 222.—Cal.

pellucida COQUILLET, Entomol. Amer., I, 222.—Cal.

varipennis WILLISTON, Biologia, Dipt., I, 294.—Guerrero, Mex.

vasta COQUILLET, West. Amer. Scientist, 1891, 199.—San Diego Co., Cal.

virgata OSTEN SACKEN, West. Dipt., 266.—Waco, Texas; Ga.

TOWNSEND, Psyche, May, 1893, 455, desc. of puparium.

Inverness, Fla.—Johnson; Cal.—Coq.

RHABDOPSELAPHUS.

BIGOT, Bull. Soc. Ent. France, 1886, ciii.

WILLISTON, Synops. Fam. and Gen., 1888, 37, quoted.

mus BIGOT, loc. cit.—Cal.

THEREVIDÆ.

BIGOT, Annales, 1889, 322, table of genera.

COQUILLET, Jour. N. Y. Ent. Soc., II, 97, 1894, table of species.

METAPHRAGMA.

COQUILLET, Jour. N. Y. Ent. Soc., II, 98, 1894.

planiceps LOEW, Cent., x, 38 (*Xestomyza*).—Cal.

COQUILLET, Jour. N. Y. Ent. Soc., II, 97, gen. ref.; does not belong to *Xestomyza*.

NEBRITUS.

COQUILLET, Jour. N. Y. Ent. Soc., II, 98, 1894.

pellucidus COQUILLET, loc. cit.—Cal.

TABUDA.

WALKER, Dipt. Saund., 197, 1853.

fulvipes WALKER, loc. cit., pl. VI, f. 4.—No locality.

EVETT, Proc. Ent. Soc. Phil., I, 217, oc. in N. J.

Ga.—O. S.

OZODICEROMYIA.

BIGOT, Annales, 1889, 321.

mexicana BIGOT, loc. cit., 322.—Mex.

PSILOCEPHALA.

ZETTERSTEDT, Ins. Lapp., 525, note, 1840; Dipt. Scand., I, 211, 1842.

COQUILLET, Canad. Ent., xxv, 223, 1893, table of species; corrected, p. 260.

acuta ADAMS, Kans. Univ. Sci. Bull., II, 222.—Englewood, Kans.

aldrichii COQUILLET, Canad. Ent., xxv, 227.—N. J., Mont., Wyo., Cal.

argentata BELLARDI, Saggio, II, 90.—Mexico City and Cordova, Mex.

ROEDER, Stett. Ent. Zeit, 1885, 340, oc. in Porto Rico.

WILLISTON, Dipt. St. Vincent, 306, pl. XI, f. 82.—St. Vincent, W. I.

baccata COQUILLET, Canad. Ent., xxv, 226.—Los Angeles and San Bernardino Cos., Cal.

costalis LOEW, Cent., VIII, 16.—Cal.

crassicornis WILLISTON, see *Thereva*.

erythrura LOEW, Cent., IX, 75.—Middle States.

festina COQUILLETT, Canad. Ent., xxv, 225.—Fla.

Fla., several places.—Johnson.

grandis JOHNSON, Canad. Ent., 1902, 241.—Rouville Co., Quebec, Can.

hæmorrhoidalis MACQUART, Dipt. Exot., II, 1, 26 (*Thereva*).—Carolina.

N. J.—Smith Cat.; Montreal—Chagnon; Ormond, Fla.—Johnson.

johnsoni COQUILLETT, Canad. Ent., xxv, 228.—Fla.

St. Augustine and Ormond, Fla.—Johnson.

lævigata LOEW, Zeitsch. f. Ges. Naturwiss., Dec., 1876, 319.—San Francisco.

longipes LOEW, Cent., VIII, 11.—Cuba.

limata COQUILLETT, Jour. N. Y. Ent. Soc., II, 99.—Col., Wash.

marcida COQUILLETT, Canad. Ent., xxv, 228.—Los Angeles and San Diego Cos., Cal.

melampodia LOEW, Cent., VIII, 12.—Ill.

melanoprocta LOEW, Cent., VIII, 15.—Me.; Huds. Bay Terr.

Axton, N. Y.—M. and H.

montivaga COQUILLETT, Canad. Ent., xxv, 226.—Los Angeles Co., Cal.

morata COQUILLETT, Canad. Ent., xxv, 225.—N. J., Fla.

(*Marmoratus* of Smith Cat.)

munda LOEW, Cent., VIII, 13.—Wis.

Montreal—Chagnon; Axton, N. Y.—M. & H.

nigra BELLARDI, Saggio, II, 92.—Mex.

SCHNER, Novara, 146, oc. in Chili (*penthoptera*, nom. nov. on account of Say's *Thereva nigra*—an unnecessary change).

notata WIEDEMANN, Dipt. Exot. 114; Auss. Zw., I, 236 (*Thereva*).—Ga.

St. Augustine and Ormond, Fla.—Johnson.

obscura COQUILLETT, Canad. Ent. xxv, 229.—Jamaica.

Key West, Fla.—Johnson.

pavida COQUILLETT, Canad. Ent., xxv, 226.—Los Angeles Co., Cal.

pictipennis WIEDEMANN, Dipt., Exot., 113; Auss. Zw., I, 235 (*Thereva*).—Ga.

CASTLE and LAURENT, Ent. News, VII, 303, oc. at Enterprise, Fla.

N. J.—Smith Cat.; Fla., several places.—Johnson.

placida COQUILLETT, Jour. N. Y. Ent. Soc., II, 99.—Fla.

platancala LOEW, Zeitsch. f. Ges. Naturwiss., Dec., 1876, 321.—Texas.

platycera LOEW, Cent. vol. II, p. 290, change of name; Cent., VIII, 14 (*laticornis*, preoc.).—Cuba.

rufiventris LOEW, Cent., VIII, 17.—Nebr. N. J.—Smith Cat.

scutellaris LOEW, Cent., IX, 74.—D. C. N. J.—Smith Cat.

slossoni COQUILLETT, Canad. Ent., xxv, 227.—N. H.

sumichrasti BELLARDI, Saggio, II, 91.—Tuxpango, Mex.

tergissa SAY, Jour. Acad. Sci. Phil., III, 39; Compl. Works, II, 57 (*Thereva*).—E. Fla.

WIEDEMANN, Auss. Zw., I, 232 (*Thereva corusca*; no reason for change of name).

COQUILLETT, Canad. Ent., xxv, 197 and 222, refers to this genus, from Fla. specimens.

univittata BELLARDI, Saggio, II, 90.—Puebla, Mex.

variegata LOEW, Cent., IX, 73.—Canada.

THEREVA.

LATRIELLE, Précis d. Caract. gén. Ins., 167, 1796; Hist. Nat. Crust. et Ins., III, 440, 1802.

MEIGEN, Syst. Besch., II, 86, 1820.

- RONDANI, Dipt. Ital. Prod., I, 155, 1856 (*Thereva* and *Dialineura*).
 SCHINER, Fauna Austr., I, 161, 1862.
 WILLISTON, Manual, 69, 1896 (*Thereva* and *Dialineura*).
 COQUILLET, Canad. Ent., xxv, 197, table of species, 1893.
albiceps LOEW, Cent., ix, 69.—Red R. of the North; L. Winnipeg.
 See *albifrons*.
albifrons SAY, Jour. Acad. Sci. Phil., vi, 156; Compl. Works, II, 353.—Ind.
 COQUILLET, Canad. Ent., xxv, 197, refers *albiceps* to this species, which seems very doubtful, from the descriptions.
argentata BELLARDI, Saggio, II, 89.—Mexico City and Cordova, Mex.
 Porto Rico—Roeder.
bolboceras OSTEN SACKEN, Biologia, Dipt., I, 162.—Presidio, Mex.
candidata LOEW, Cent., viii, 10.—N. Wis.
 North U. S. and Canada—O. S. Cat.; also note, p. 239, correcting Loew, "read *clausa* for *aperta*." Montreal—Chagnon.
comata LOEW, Cent., viii, 9.—Cal.
conspicua WALKER, List, I, 223.—Nova Scotia.
crassicornis BELLARDI, Saggio, II, 88, pl. II, f. 16.—Mex.
crassicornis WILLISTON, Trans. Amer. Ent. Soc., xiii, 293.—Cal.
 COQUILLET, Canad. Ent., xxv, 222, refers to *Psilocephala*, from Cal. specimens.
diversa COQUILLET, Jour. N. Y. Ent. Soc., II, 100.—Col., Mont., Fla.
duplicis COQUILLET, Canad. Ent., xxv, 199.—S. D., Mont.
egressa COQUILLET, Jour. N. Y. Ent. Soc., II, 99.—Col., Cal.
flavicincta LOEW, Cent., ix, 70; op. cit., 71 (*gilvipes*).—Wis., N. H.; Mass.
 [Coq.]
 N. J.—Smith Cat.; Axton, N. Y.—M. & H.
frontalis SAY, Long's Exped., App., 370; Compl. Works, I, 252.—N. W. Terr.
 WIEDEMANN, Auss. Zw., I, 230. Montreal—Chagnon.
fucata LOEW, Cent., x, 37.—Cal.
germana WALKER, List, I, 222.—Fla.
hirticeps LOEW, Berl. Ent. Zeitsch., 1874, 382.—San Francisco.
johnsoni COQUILLET, Canad. Ent., xxv, 200.—Wash.
melanoneura LOEW, Cent., x, 36.—Cal.
 COQUILLET, Proc. Acad. Sci. Wash., II, 407, oc. at Kukak Bay, Alaska.
melanophleba LOEW, Zeitsch. f. ges. Naturwiss., 1876, 317.—San Francisco.
nervosa WALKER, List, I, 223.—Ga. (preoc.—Osten Sacken).
nigra SAY, Jour. Acad. Sci. Phil., III, 40; Compl. Works, II, 57.—Pa.
 WIEDEMANN, Auss. Zw., I, 235.
 COQUILLET, Canad. Ent., xxv, 222, doubtfully recognized from Cal.
nitoris COQUILLET, Jour. N. Y. Ent. Soc., II, 101.—Mo.
otiosa COQUILLET, Canad. Ent., xxv, 199.—Los Angeles Co., Cal.
 N. J.—Smith Cat.
ruficornis MACQUART, Dipt. Exot., II, I, 25.—Carolina.
semitaria COQUILLET, Canad. Ent., xxv, 198.—S. Cal.
 senex WALKER, List, I, 224.—Nova Scotia. Province of Quebec—Fyles.
strigipes LOEW, Cent., ix, 72.—L. Winnipeg, Canada.
 JOHANNSEN, Ent. News, xiv, 15, notes.—Axton, N. Y.
 White Mts., N. H.—Slosson.
tergissa SAY, see *Psilocephala*.
varia WALKER, List, I, 221.—Fla.
vialis OSTEN SACKEN, West. Dipt., 274.—Yosemite Valley, Cal.

WILLISTON, Trans. Amer. Ent. Soc., XIII, 293, oc. in Wash., etc.; Dipt. of Death Val. Exped., oc. in Death Val., Cal.

vicina WALKER, List, I, 222.—Nova Scotia.

OSTEN SACKEN, Cat., 97, note on types of Walker's *Therevas*.

SCENOPINIDÆ.

COQUILLETT, Ent. News, XI, 500, 1900, table of the three N. A. genera.

METATRICHIA.

COQUILLETT, Ent. News, XI, 500, 1900.

bulbosa OSTEN SACKEN, West. Dipt., 275 (*Scenopinus*).—Mo.

COQUILLETT, Ent. News, XI, 500, refers to this genus, as type.

PSEUDATRICHIA.

OSTEN SACKEN, West. Dipt., 275, 1877, change of name.

LOEW, Cent., VII, 76, 1866 (*Atrichia*, preoc.).

flaviceps COQUILLETT, Proc. U. S. N. M., XXV, 102.—Williams, Ariz.

griseola COQUILLETT, Ent. News, XI, 500.—Mesilla Park, N. M., and Los Angeles Co., Cal.

longurio LOEW, Cent., VII, 76 (*Atrichia*).—Mex.

pilosa COQUILLETT, Proc. U. S. N. M., XXV, 102.—Williams and Hot Springs, Ariz.

unicolor COQUILLETT, Ent. News, XI, 500.—Las Vegas, N. M.

SCENOPINUS.

LATREILLE, Hist. Nat. Crust. et Ins., III, 463, 1802; XIV, 392, 1804.

MEIGEN, Syst. Besch., IV, 111, 1824.

MACQUART, Hist. Nat. Dipt., II, 5, 1835.

SCHINER, Fauna Austr., I, 159, 1862.

BRAUER, Zweifl. d. Kaiserl. Mus., II, 42, 1882, full discussion of related forms.

albidipennis LOEW, Cent., VIII, 53.—Cuba.

bulbosus OSTEN SACKEN, see *Metatrichia*.

fenestralis LINNÉ, Fauna Suecica, 1845 (*Musca*).—Europe.

DEGEER, Mém. pour. Servir Hist. Nat. Ins., II, 77 (*Nemotelus*).

LATREILLE, Gen. Crust., IV, 349; Consid. Génér., 444.

FABRICIUS, Syst. Antl., 335.

MEIGEN, Syst. Besch., IV, 113 (114, *sulcicollis*; 115, *vitripennis*; 116, *domesticus*; VII, 165, *rufitarsis*).

SAY, Jour. Acad. Sci. Phil., III, 100; Compl. Works, II, 86 (*pallipes*).—Pa.

LOEW, Verh. Zool.-Bot. Ver., 1857, oc. in N. A.; Silliman's Jour., syn. of *pallipes*.

SCHINER, Fauna Austr., I, 159.

HAGEN, Canad. Ent., XVIII, 129, larvæ found under carpet, may be carnivorous (*pallipes*).

OSTEN SACKEN, Ent. Mo. Mag., XXIII, 51, larval habits—undoubtedly carnivorous.

LINTNER, in Amsterdam, N. Y., "Daily Democrat," Nov. 1, 1890, larva "feeds only, so far as known, on the larvæ and pupæ of the clothes-moth."

N. J.—Smith Cat.; Montreal—Chagnon.

glabrifrons MEIGEN, Syst. Besch., IV, 114 (*glabrifrons* and *orbita*); 113 (*halterata*).—Europe.

SCHINER, Fauna Austr., I, 160.

LOEW, Verh. Zool.-Bot. Ver., 1857; Silliman's Jour., oc. in N. A.

nubilipes SAY, Jour. Acad. Sci. Phil., VI, 170; Compl. Works, II, 362.—Ind. Cuba, Fla.—Loew, in O. S. Cat.

MYDAIDÆ.

GERSTÆCKER, Stett. Ent. Zeit., 1868, 72, table of genera.

DOLICHOGASTER.

MACQUART, Dipt. Exot., Suppl., II, 2, 178, 1848.

WILLISTON, Kans. Acad. Sci., 1897, 57, correction.

brevicornis WIEDEMANN, Dipt. Exot., 117; Auss. Zw., I, 242 (*Midas*).—Brazil.

Also Auss. Zw., I, 241 (*Midas iopterus*).—Brazil. [O. S.]

MACQUART, Dipt. Exot., Suppl., II, 2, 179, pl. II, f. 2.—Brazil.

WALKER, List, I, 228, oc. in Mass. and St. John's Bluff, Fla. (*iopterus*).

ECTHYPUS.

GERSTÆCKER, Stett. Ent. Zeit., 1868, 92.

WILLISTON, Trans. Amer. Ent. Soc., XIII, 292, oc. in N. A., and note.

limbatus WILLISTON, Trans. Amer. Ent. Soc., XIII, 292.—Ariz.

townsendi WILLISTON, Proc. Kans. Acad. Sci., 1897, 58.—N. M.

LEPTOMYDAS.

GERSTÆCKER, Stett. Ent. Zeit., 1868, 81.

WILLISTON, Kans. Acad. Sci., 1897, 53, table of species.

brachyrhynchus OSTEN SACKEN, Biologia, Dipt., I, 69.—N. Sonora, Mex.

WILLISTON, Proc. Acad. Sci. Kans., 1897, 54, male.—Mex.; Biologia, Dipt., I, 267, oc. at Teapa, Mex., and notes.

pantherinus GERSTÆCKER, Stett. Ent. Zeit., 1868, 85.—Cal.

OSTEN SACKEN, West. Dipt., 280.—San Francisco, Cal.

WILLISTON, Trans. Amer. Ent. Soc., XIII, 291, male.—Wash., Cal.

sponsor OSTEN SACKEN, Biologia, Dipt., I, 68.—Guatemala.

tenuipes LOEW, Cent., X, 20 (*Midas*).—Cal.

venosus LOEW, Cent., VII, 26 (*Midas*).—Pecos R., West. Texas.

HINE, Canad. Ent., XXXV, 245.—Oak Creek Canyon, Ariz.

MYDAS.

FABRICIUS, Ent. Syst., IV, 252, 1794; Syst. Antl., 60, 1805.

LATREILLE, Hist. Nat. Crust. et Ins., III, 447, 1802; XIV, 338, 1804.

MEIGEN, Syst. Besch., II, 99, 1820.

WIEDEMANN, Mon. Gen. Midarum, Bonn, 1831.

MACQUART, Hist. Nat. Dipt., I, 273, 1834.

SCHINER, Fauna Austr., I, 158, 1862.

GERSTÆCKER, Stett. Ent. Zeit., 1868, 93.

OSTEN SACKEN, Berl. Ent. Zeitsch., 1895, 345, discusses the forms *Midas* and *Mydas*, accepting the latter.

WILLISTON, Kans. Acad. Sci., 1897, 54, table of species.

annularis GERSTÆCKER, Stett. Ent. Zeit., 1868, 100.—Mex.

WILLISTON, Biologia, Dipt., I, 268, oc. in Chilpancingo, Mex., and notes.

- annulicornis** WESTWOOD, see *mystaceus*.
- audax** OSTEN SACKEN, Bull. Buff. Soc. Nat. Hist., 1874, 186; Cat., 235, desc. quoted.—Ky.
- basalis** WESTWOOD, Arcana Ent., 1, 53.—Mex.
 BELLARDI, Saggio, II, 10.—Angang, Mex.
 WILLISTON, Kans. Acad. Sci., 1897, 55, oc. in N. M.
- bitæniatus** BELLARDI, Saggio, II, 7, pl. 1, f. 1.—Playa Vicente, Mex.
- brevicornis** WIEDEMANN, see *Dolichogaster*.
- carbonifer** OSTEN SACKEN, Bull. Buff. Soc. Nat. Hist., 1874, 186; quoted in Cat., 236.—West. N. Y.
- chrysites** OSTEN SACKEN, Biologia, Dipt., 1, 72.—N. Sonora, Mex.
- chrysostoma** OSTEN SACKEN, Bull. Buff. Soc. Nat. Hist., 1874, 187; quoted in Cat., 236.—Texas. N. J.—Smith Cat.
- clavatus** DRURY, Illustrations of Nat. Hist., 1, 103, pl. XLIV, f. 1; II, Appendix (*Musca*).
 DEGEER, Mém. pour Serv. Hist. Nat. Ins., pl. XXIX, f. 6 (*Nemotelus asiloides*).
 FABRICIUS, Syst. Ent., 756 (*Bibio illucens*); Spec. Ins., II, 412 (*Bibio filata*); Mantissa Ins., 328 (id.); Ent. Syst., IV, 252 (*Mydas filatus*); Syst. Antl., 60 (id.).—S. A.
 OLIVIER, Encycl. Méthodique, VIII, 83 (*filatus*).
 WIEDEMANN, Dipt. Exot., 116 (*filatus*); Auss. Zw., 1, 240 (id.); Mon. Midarum, pl. LIII, f. 8 (id.).—S. A.
 Eastern U. S. N. J.—Smith Cat.; Fla.—Johnson; Chicago—J. M. A.
- cleptes** OSTEN SACKEN, Biologia, Dipt., 1, 72.—N. Sonora, Mex., and perhaps Texas.
- crassipes** WESTWOOD, Arcana Ent., 1, 51, pl. XIII, f. 3.—N. A.
 OSTEN SACKEN, Biologia, Dipt., 1, 71, note.
 WILLISTON, Biologia, Dipt., 1, 268, oc. in Teapa, Mex.
- decor** OSTEN SACKEN, Biologia, Dipt., 1, 71.—Panama.
 WILLISTON, Kans. Acad. Sci., 1897, 55, oc. in N. M. and Mex.; Biologia, Dipt., 1, 268, oc. in Guerrero, Mex.
- dives** WESTWOOD, Arcana Ent., 1, 50, pl. XIII, f. 1.—Brazil.
 OSTEN SACKEN, Biologia, Dipt., 1, 70.—Panama.
 WILLISTON, Kans. Acad. Sci., 1897, 55, notes.
- fulvifrons** ILLIGER, Illig. Mag., 1, 206.—Ga.
 WIEDEMANN, Monogr. Midarum, 47, pl. LIII, f. 13.—Ga.
 WILLISTON, Kans. Acad. Sci., 1897, 55, oc. in Fla. N. J.—Smith Cat.
- fulvipes** WALSH, Proc. Boston Soc. Nat. Hist., IX, 306.—Ill.
 ROEDER, Wien. Ent. Zeitung, XIII, 169.—Mo.
- gracilis** MACQUART, Hist. Nat. Dipt., 1, 274, pl. VII, f. 1.—S. A.
 Oc. in Cuba reported by Loew, in O. S. Cat., 84.
- incisus** MACQUART, Dipt. Exot., 1, 2, 11, pl. 1, f. 1.—Carolina.
 JÆNNICKE, Neue Exot. Dipt., 354, oc. in Mex.
 See *pachygaster*.
- interruptus** WIEDEMANN, Monogr. Midarum, 46, pl. LIII, f. 12.—Mex.
 BELLARDI, Saggio, II, 8, pl. 1, f. 2 (*tricinctus*).—Mex. City. [Gerst.]
- luteipennis** LOEW, Cent., VII, 23.—West. Texas. Ariz.—Williston.
- maculiventris** WESTWOOD, Lond. and Edinb. Philos. Mag., 1835; Arcana Ent., 1, 53, pl. XIII, f. 5.—Ga.
- militaris** GERSTÆCKER, Stett. Ent. Zeit., 1868, 10 and 99.—Vera Cruz, Mex.

- MACQUART, Dipt. Exot., Suppl., IV, 60, pl. IV, f. 6 (*vittatus* Wied.).—Mex. [Will.]
- BELLARDI, Saggio, II, 7 (id.).—Mex.
- WILLISTON, Biologia, Dipt., I, 268, oc. in Guerrero, Mex.
- See *rufiventris* MACQ.
- mystaceus** WIEDEMANN, Monogr. Midarum, 40, pl. LII, f. 3, male.—Surinam.
- WESTWOOD, Arcana Ent., I, 51, pl. XIII, f. 2, female (*annulicornis*).—Brazil.
- GERSTÆCKER, Syst. Uebersicht Exot. Mydaden, 94, syn.
- WILLISTON, Kans. Acad. Sci., 1897, 57, oc. in Mexico (*annulicornis*).
- pachygaster** WESTWOOD, Arcana Ent., I, 53, pl. XIII, f. 4.—Ga.
- JÆNNICKE, Neue Exot. Dipt., 354, oc. in Mex.
- JOHNSON, Proc. Acad. Nat. Sci. Phil., 1895, 325, oc. in Fla., and suggests that *incisus* MACQ. is the male of the same species.
- parvulus** WESTWOOD, Arcana Ent., I, 53, pl. XIII, f. 6.—Ga.
- Fla.—Walker; Georgiana, Fla.—Johnson.
- quadrilineatus** WILLISTON, Kans. Acad. Sci., 1897, 56.—Mex. Also Biologia, Dipt., I, 268, oc. in Guerrero and Jalisco, Mex.
- rubidapex** WIEDEMANN, Monogr. Midarum, 40, pl. LII, f. 2; Auss. Zw., 626.—Mex.
- BELLARDI, Saggio, II, 5.—Mex.
- BRAUER, Syst. Zool. Studien, pl. I, f. 2. [Will.]
- OSTEN SACKEN, Biologia, Dipt., I, 70, oc. in Guatemala, and notes.
- WILLISTON, Kans. Acad. Sci., 1897, 55, oc. in Mex.; Biologia, Dipt., I, 267, oc. in Guerrero, Mex., and in Yucatan.
- [**rufiventris** MACQUART, Dipt. Exot., Suppl., IV, 60.—Brazil.
- WILLISTON, Kans. Acad. Sci., 1897, 56, and Biologia, Dipt., I, 268, thinks this probably the prior name for *militaris* and *ventralis* GERST.]
- scitulus** WILLISTON, Trans. Amer. Ent. Soc., XIII, 291.—Ariz.
- senilis** WESTWOOD, Arcana Ent., I, 52.—Mex.
- simplex** LOEW, Cent., VII, 25.—West. Texas.
- subinterruptus** BELLARDI, Saggio, II, 10, pl. I, f. 3.—Angang and Patzcuaro, Mex.
- tibialis** WIEDEMANN, Monogr. Midarum, 42, pl. LIII, f. 6; Auss. Zw., II, 627.—Baltimore, Md.
- BELLARDI, Saggio, II, 6.—Mex.
- WESTWOOD, Arcana Ent., I, 51.
- WALKER, List, VI, 359.
- Mich.—O. S. Cat.
- tricolor** WIEDEMANN, Monogr. Midarum, 42, pl. LIII, f. 5.—Cuba.
- BIGOT, in Sagra's Cuba, 799.—Cuba.
- ventralis** GERSTÆCKER, Stett. Ent. Zeit., 1868, 102, change of name.
- LOEW, Cent., VII, 22 (*rufiventris*, preoc.).—Cal.
- See *rufiventris* MACQ.
- xanthopterus** LOEW, Cent., VII, 24.—West. Texas.
- GERSTÆCKER, Stett. Ent. Zeit., 1868, 96 (*lavatus*).—Mex. [O. S.]

PHYLLOMYDAS.

- BIGOT, Bull. Soc. Ent. France, 1880, no. 6, 62 (*Phyllomidas*).
- WILLISTON, Manual N. A. Dipt., 63, quotes desc.
- phyllocerus** BIGOT, op. cit., 63.—Rocky Mts.

APIOCERIDÆ.

The relations of the group, and the question of family rank, have been exhaustively discussed in the following papers:

OSTEN SACKEN, Berl. Ent. Zeitsch., xxvii, 1883, 287.

WILLISTON, Psyche, 1888, 100, and Kans. Univ. Quart., i, 101, 1893, two plates.

APIOCERA.

WESTWOOD, London and Edinb. Philos. Mag., 1835; Arcana Ent., i, 50, 1841.

MACQUART, Dipt. Exot., i, 1, 78, 1838 (*Tapinocera*).

MACQUART, Dipt. Exot. Suppl., ii, 47, 1847 (*Pomacera*).

PHILLIPPI, Verh. Zool.-Bot. Ges., 1865, 702, pl. xxv, f. 26 (*Anypenus*).

augur OSTEN SACKEN, Biologia, Dipt., i, 2.—Presidio, Mex.

haruspex OSTEN SACKEN, West. Dipt., 283.—Yosemite, Cal. There is a correction of the desc. in Berl. Ent. Zeitsch., xxvii, 300.

COQUILLETT, Psyche, 1885, 244.

Wash.—J. M. A.

APOMYDAS.

COQUILLETT, Canad. Ent., xxiv, 314, 1892 (*Apomidas*).

trochilus COQUILLETT, Canad. Ent., xxiv, 315.—Merced Co., Cal.

RHAPHIOMYDAS.

OSTEN SACKEN, West. Dipt., 281, 1877.

TOWNSEND, Proc. Cal. Acad. Sci., iv, 601, table of species.

acton COQUILLETT, West. Amer. Scientist, vii, 84.—Los Angeles Co., Cal.

TOWNSEND, Proc. Cal. Acad. Sci., iv, 602.—Sonora, Mex.

episcopus OSTEN SACKEN, West. Dipt., 282.—Cal., or perhaps Lower Cal.

TOWNSEND, Proc. Cal. Acad. Sci., iv, 603.—Lower Cal. The comparison with *episcopus* made by Coquillett in describing *acton* refers to *mellifex* instead.

mellifex TOWNSEND, Proc. Cal. Acad. Sci., iv, 604.—Lower Cal.

COQUILLETT, West American Scientist, vii, 84 (*episcopus*).—Los Angeles Co., Cal. [Townsend.]

xanthos TOWNSEND, Proc. Cal. Acad. Sci., iv, 606.—Lower Cal. Also in Trans. Amer. Ent. Soc., xxvii, 161, oc. in Las Cruces, N. M.

ASILIDÆ.

LEPTOGASTER.

MEIGEN, Illig. Mag., ii, 269, 1803.

LATREILLE, Hist. Nat. Crust. et Ins., xiv, 309 (*Gonypes*), 1804.

MEIGEN, Syst. Besch., ii, 258, 1820.

MACQUART, Hist. Nat. Dipt., i, 315 (*Gonypes*), 1834.

ZETTERSTEDT, Dipt. Scand., i, 186, 1842.

SCHINER, Fauna Austr., i, 117, 1862.

WILLISTON, Biologia, Dipt., i, 298, partial table of Mexican species, 1901.

annulatus SAY, Jour. Acad. Sci. Phil., iii, 75; Compl. Works, ii, 68.—Pa.

WIEDEMANN, Auss. Zw., i, 535 (*histrion*; no reason for change of name).

SCHINER, Verh. Zool.-Bot. Ges., 1867, 356, notes on Wiedemann specimen.

N. J.—Smith Cat.; Province of Quebec—Fyles (*histrion*).

badius LOEW, Cent., II, 6.—Ill.

N. J.—Smith Cat.; Montreal—Chagnon; White Mts., N. H.—Slosson.
brevicornis LOEW, Cent., x, 23.—Texas.

carolinensis SCHINER, Verh. Zool.-Bot. Ges., 1866, 696, change of name.

MACQUART, Dipt. Exot., I, 2, 155 (*Gonypes nitidus*, preoc.).—Carolina.

OSTEN SACKEN, Catalogue, 230, note 98, on priority, etc.

clavipes JOHNSON, Ent. News, VIII, 120, change of name; Proc. Acad. Nat. Sci.

Phil., 1894, 273 (*longipes*, preoc.).—Jamaica.

concinatus WILLISTON, Biologia, Dipt., I, 300.—Guerrero, Mex.

croceus WILLISTON, Biologia, Dipt., I, 300.—Guerrero, Mex.

cubensis BIGOT, in Sagra's Cuba, 792 (*Gonypes*).—Cuba.

ROEDER, Stett. Ent. Zeit., 1885, 340.—Porto Rico.

dorsalis WILLISTON, Biologia, Dipt., I, 301.—Guerrero, Mex.

educranus LOEW, Berl. Ent. Zeitsch., 1874, 353.—Texas.

favillaceus LOEW, Cent., II, 12.—Conn.

fervens WIEDEMANN, Auss. Zw., II, 646.—Mex.

flavicornis VAN DER WULP, Tijdschr. v. Ent., x, 136.—Wis.

LOEW, Zeitsch. f. Ges. Naturwiss., XXXVI, 120, says probably is a syn. of *flavipes*.

flavipes LOEW, Cent., II, 15.—Nebr.; O. S. changes this to Atlantic States in his Catalogue.

VAN DER WULP, Tijdschr. v. Ent., XXVII, (sep.) I, male described. His own *flavicornis* is very likely the same.—Mass.

N. J.—Smith Cat.; Montreal—Chagnon.

histrion WIEDEMANN, see *annulatus*.

incisuralis LOEW, Cent., II, 11.—Ill. N. J.—Smith Cat.

intimus WILLISTON, Biologia, Dipt., I, 300.—Guerrero, Mex.

longipes JOHNSON, see *clavipes*.

macropygialis WILLISTON, Biologia, Dipt., I, 301, pl. v. f. 14.—Teapa, Mex.

micropygialis WILLISTON, Biologia, Dipt., I, 301.—Guerrero, Mex., several places.

murinus LOEW, Cent., II, 9.—Nebr.

obscuripennis JOHNSON, Proc. Acad. Nat. Sci., 1895, 304, 306.—Fla.

obscuripes LOEW, Cent., II, 13.—Cuba.

JÆNNICKE, Neue Exot. Dipt., 46 (*ramoni*).—Cuba. [Loew, in O. S. Cat.]

ochraceus SCHINER, Verh. Zool.-Bot. Ges., 1867, 359.—Pa.

pictipes LOEW, Cent., II, 7.—Ill.

TOWNSEND, Annals and Mag. Nat. Hist., XX, 23, thinks *varipes* is the same; oc. Vera Cruz. N. J.—Smith Cat.

ræderi WILLISTON, Trans. Ent. Soc. Lond., 1896, 305, pl. XI, f. 80.—St. Vincent, W. I.

rubida WIEDEMANN, of Williston, see *testaceus*.

scapularis BIGOT, Annales, 1878, 444.—Cal.

tenuipes LOEW, Cent., II, 14.—D. C.

testaceus LOEW, Cent., II, 10.—N. Y.

? WILLISTON, Biologia, Dipt., I, 299, doubtfully identified from N. Yucatan; *rubida* Wied. of S. A. may be the same.

Montreal—Chagnon; N. J.—Smith Cat.

triungulatus WILLISTON, Biologia, Dipt., I, 299, pl. v, f. 13.—Amula in Guerrero, Mex.

truquii BELLARDI, Saggio, II, 87, pl. II, f. 18.—Mex.; "Jantepec."

varipes LOEW, Cent., II, 8.—D. C. See also note under *pictipes*.

DICRANUS.

LOEW, Bemerkungen über Asiliden, 1851, 13.

WILLISTON, Ent. News, VII, 185, oc.

jaliscoensis WILLISTON, Biologia, Dipt., I, 302, pl. v, f. 15.—Jalisco, Mex.

DAMALIS.

FABRICIUS, Syst. Antl., 147, 1805.

WESTWOOD, Annales Soc. Ent. France, IV, 684 (*Chalcidomorpha*), 1835.

occidentalis WILLISTON, Biologia, Dipt., I, 309, pl. v, f. 21.—Tepetlapa and Santiago, Mex.

TOWNSENDIA.

WILLISTON, Kans. Univ. Quart., IV, 107, 1895; Biologia, Dipt., I, 307, 1901.

minuta WILLISTON, Kans. Univ. Quart., IV, 107; Biologia, Dipt., I, 307, pl. v, f. 19.—Tabasco, Mex.; N. M.

ABLAUTUS.

LOEW, Cent., VII, 63, 1866; Berl. Ent. Zeitsch., 1874, 377, name changed to *Ablautatus*.

SCHINER, Verh. Zool.-Bot. Ges., 1866, 846, quotes orig. desc.

OSTEN SACKEN, West. Dipt., 1877, 289 (*Ablautatus*).

WILLISTON, Manual, adopts original form.

mimus OSTEN SACKEN, West. Dipt., 289 (*Ablautatus*).—San Bernardino, Cal. Ariz.—Williston.

trifarius LOEW, Cent., VII, 63.—Cal.

? OSTEN SACKEN, Biologia, Dipt., I, 168, doubtful oc. in N. Sonora, Mex. (*Ablautatus*).

OSPRIOCERUS.

LOEW, Cent., VII, 51, 1866.

SCHINER, Verh. Zool.-Bot. Ges., 1866, 846, quotes orig. desc.

COQUILLET, Ent. News, IX, 37, 1898, synopsis of species.

WILLISTON, Biologia, Dipt., I, 303, notes, 1901.

abdominalis SAY, Long's Exped., App., 375; Compl. Works, I, 255 (*Asilus*). N. W. Terr.

WIEDEMANN, Auss. Zw., I, 390, changes name to *Dasyzogon æacus*.

LOEW, Cent., VII, 51 (*æacides*).—Cal. [Coq.]

OSTEN SACKEN, West. Dipt., 290, oc. in Col., etc. (*æacus*).

COQUILLET, Ent. News, IX, 37, note. Mont.—Will. Ms.

æacus WIEDEMANN, see *abdominalis*.

æacides LOEW, see *abdominalis*.

diversus WILLISTON, Biologia, Dipt., I, 303, pl. v, f. 16.—Guerrero, Mex.

eutrophus LOEW, Berl. Ent. Zeitsch., 1874, 355.—Pecos R., Tex.

Kans.—O. S. Cat.

minos OSTEN SACKEN, West. Dipt., 291.—Col.

rhadamanthus LOEW, Cent., VII, 52.—Pecos R., Texas.

spatulatus BELLARDI, Saggio, II, 82, pl. I, f. 9.—Mex.

LOEW, Cent., VII, 51, thinks is probably *æacus*—that is, *abdominalis*.

ventralis COQUILLET, Ent. News, IX, 37.—Ariz.

SCLEROPOGON.

LOEW, Cent., VII, 45, 1866.

SCHINER, Verh. Zool.-Bot. Ges., 1866, 846, quotes orig. desc.



- helvolus LOEW, Berl. Ent. Zeitsch., 1874, 355.—Texas. Nebr.—J. M. A.
 lugubris WILLISTON, Biologia, Dipt., 1, 304.—Guerrero, Mex.
 ochraceus VAN DER WULP, Tijdschr. v. Ent., XIII, 212, pl. IX, f. 9 (*Stenopogon*);
 XXV, 96, notes; refers to this genus.—N. A.
 OSTEN SACKEN, Cat., note 101, gen. ref.
 picticornis LOEW, Cent., VII, 45.—Cal.
 truquii BELLARDI, Saggio, II, 76, pl. I, f. 10 (*Stenopogon*?).—Mex.
 WILLISTON, Biologia, Dipt., 1, 303.—Guerrero, Mex.

STENOPOGON.

- LOEW, Linnæa Ent., II, 453, 1847.
 SCHINER, Fauna Austr., I, 127, 1862.
 æacidinus WILLISTON, Trans. Amer. Ent. Soc., XIII, 289.—Kans.
 albibasis BIGOT, Annales, 1878, 422.—Cal.
 brevisculus LOEW, Cent., x, 28.—Cal.
 californiæ WALKER, List, II, 322 (*Dasyopogon*).—Cal.
 consanguineus LOEW, Cent., VII, 48.—Nebr.
 fuscolumbatus BIGOT, Annales, 1878, 421.—Mex.
 gratus LOEW, Cent., x, 31; loc. cit., 29, female (*univittatus*).—Both Cal.
 [LOEW, Berl. Ent. Zeitsch., 1874, 358.]
 inquinatus LOEW, Cent., VII, 47.—Nebr.
 latipennis LOEW, Cent., VII, 49.—Pecos R., Texas.
 longulus LOEW, Cent., VII, 50.—Pecos R., Texas.
 modestus LOEW, Cent., VII, 46.—Red R. of the North.
 morosus LOEW, Berl. Ent. Zeitsch., 1874, 356.—Red R. of the North.
 obscuriventris LOEW, Cent., x, 30.—Cal.
 subulatus WIEDEMANN, Auss. Zw., I, 375 (*Dasyopogon*).—Ga.
 univittatus LOEW, see *gratus*.

SPHAGEUS.

- LOEW, Cent., VII, 55, 1866.
 SCHINER, Verh. Zool.-Bot. Ges., 1866, 847, quotes orig. desc.
 chalcoproctus LOEW, Cent., VII, 55.—Cuba.

MICROSTYLUM.

- MACQUART, Dipt. Exot., I, 2, 26, 1838.
 LOEW, Dipterenfauna Südafrika's, 74, 1860.
 fulvigaster BIGOT, Annales, 1878, 410.—Mex.
 galactodes LOEW, Cent., VII, 44.—N. M.; OSTEN SACKEN, Cat., corrects to Pecos
 R., Texas, and adds Kans.
 morosum LOEW, Cent., x, 27.—Dallas, Texas.
 pollens OSTEN SACKEN, Cat., 230, note 100.—Dallas, Texas.

Note.—Osten Sacken's reference was not intended as a description, but I think the data and the availability of the types make it valid.

ARCHILESTRIS.

- LOEW, Berl. Ent. Zeitsch., 1874, 377, change of name.
 SCHINER, Verh. Zool.-Bot. Ges., 1866, 672 (*Archilestes*, preoc.).
 OSTEN SACKEN, Biologia, Dipt., 1, 169, note, 1887.
 magnificus WALKER, List, VI, 427 (*Dasyopogon*).—Mex.
 BELLARDI, Saggio, II, 79, pl. I, f. II (*Microstylum*).—Mexico, near the
 city, at Yautepec and Huastec.
 SCHINER, Novara, 168 (id.).—S. A.

OSTEN SACKEN, *Biologia*, Dipt., 1, 169, oc. in *Ventenas*, Mex.

WILLISTON, *Psyche*, 1889, 259.

DIZONIAS.

LOEW, *Cent.*, vii, 53, 1866.

SCHINER, *Verh. Zool.-Bot. Ges.*, 1866, 846, quotes orig. desc.

WILLISTON, *Biologia*, Dipt., 1, 305.

tristis WALKER, *Dipt. Saund.*, 93 (*Dasygogon*).—U. S.

BELLARDI, *Saggio*, ii, 80, pl. i, f. 8 (*Das. quadrimaculatus*).—Mex.

LOEW, *Cent.*, vii, 54 (*bicinctus*).—N. M.; corrected by O. S. Cat. to Pecos

R., Texas, and Dallas, Texas, and Florida are added.

OSTEN SACKEN, *Cat.*, 230, note 103, on types, etc.

VAN DER WULP, *Tijdschr. v. Ent.*, xxv, 96, oc. in Argentina.

Florida, several places—Johnson.

lucasi BELLARDI, *Saggio*, ii, 81, pl. i, f. 7 (*Dasygogon*).—Mex.

WILLISTON, *Biologia*, Dipt., 1, 304.—Jalisco, Mex.

phœnicurus LOEW, *Cent.*, vii, 53.—Tamaulipas, Mex.

WILLISTON, *Biologia*, Dipt., 1, 304.—Jalisco, Mex.

pilatei JOHNSON, *Psyche*, 1903, 112, fig.—Tifton, Ga.

PSILOCURUS.

LOEW, *Berl. Ent. Zeitsch.*, 1874, 373.

WILLISTON, *Kans. Univ. Quart.*, ii, 67, 1893 (*Orthonneuromyia*). [Will.]

caudatus WILLISTON, *Biologia*, Dipt., 1, 308, pl. v, f. 20.—Guerrero, Mex.

modestus WILLISTON, *Kans. Univ. Quart.*, ii, 67 (*Orthonneuromyia*).—Western S. D.

nudiusculus LOEW, *Berl. Ent. Zeitsch.*, 1874, 370.—Texas.

LAPHYSTIA.

LOEW, *Linnaea Ent.*, ii, 538, 1847.

SCHINER, *Fauna Austr.*, i, 136, 1862.

BIGOT, *Annales*, 1879, 235.

? **albiceps** MACQUART, *Dipt. Exot.*, Suppl., i, 69 (*Dasygogon*).—Texas.

OSTEN SACKEN, *Cat.*, gen. ref. with a doubt.

sexfasciata SAY, *Jour. Acad. Sci. Phil.*, iii, 50; *Compl. Works*, ii, 64 (*Dasygogon*).—Mo.

WIEDEMANN, *Auss. Zw.*, i, 408 (id.).

SCHINER, *Verh. Zool.-Bot. Ges.*, 1866, 693 (*Laphyctis*).

LOEW, *Berl. Ent. Zeitsch.*, 1874, 373.

BIGOT, *Annales*, 1878, 433 (*Triclis notata*); *Bull. Soc. Ent. France*, 1879, 87 (*Triclis notata* and *L. sexfasciata*); *Annales*, 1879, 236 (mentioned as *L. subfasciata*).—N. A. [Will.]

WILLISTON, *Trans. Amer. Ent. Soc.*, xi, 9; xii, 53.—Mont., S. States.

N. J.—Smith *Cat.*; St. Augustine, Fla., "Common along seashore"—Johnson.

TRICLIS.

LOEW, *Bemerkungen Ueber Asiliden*, 17, 1851.

argentifacies WILLISTON, *Biologia*, Dipt., 1, 310, pl. v, f. 22.—Guerrero, Mex.

notata BIGOT, see *Laphystia sexfasciata*.

tagax WILLISTON, *Trans. Amer. Ent. Soc.*, xi, 9, pl. i, f. 6, 6a; xiii, 289, notes.—Cal.

CERATURGUS.

- WIEDEMANN, *Analecta Ent.*, 12, 1824; *Auss. Zw.*, 1, 414, 1828.
 MACQUART, *Hist. Nat. Dipt.*, 1, 288, 1834.
aurulentus FABRICIUS, *Syst. Antl.*, 166 (*Dasygogon*).—N. Y.
 WIEDEMANN, *Dipt. Exot.*, 228 (id.); *Analecta Ent.*, 12; *Auss. Zw.*, 1, 414, pl. VII, f. 5.—N. Y.
 MACQUART, *Hist. Nat. Dipt.*, 1, 239, pl. VII, f. 4.—N. Y.
 BRAUER, *Wien. Ent. Zeitung*, II, 56.
 JOHNSON, *Psyche*, 1903, III, fig. of antenna; oc. in N. J. and Pa. N. J.—Smith Cat.
cruciatus SAY, *Jour. Acad. Sci. Phil.*, III, 52; *Compl. Works*, II, 66 (*Dasygogon*).—Ark.
 WIEDEMANN, *Auss. Zw.*, 1, 381 (id.).—Ark.
 WALKER, *List*, II, 367 (*fasciatus*).—N. Y. [Lw., in O. S. Cat.]
 BRAUER, *Wien. Ent. Zeitung*, II, 56.
 JOHNSON, *Psyche*, 1903, 112, fig. of antenna.
 N. J.—Smith Cat.; Fla.—Johnson; S. D.—J. M. A.
 For *Dasygogon cornutus* Wied., see *Ceraturgopsis*.
dimidiatus MACQUART, *Dipt. Exot.*, *Suppl.*, II, 35 (*Dasygogon*).—Mex.
 WALKER, *List*, VI, 428.
 BELLARDI, *Saggio*, II, 61.
 BRAUER, *Wien. Ent. Zeitung*, II, 56.
geniculatus BIGOT, *Annales*, 1878, 443.—Mex.
lobicornis OSTEN SACKEN, see *Myelaphus*.
nigripes WILLISTON, *Trans. Amer. Ent. Soc.*, XIII, 287, 288.—Ga.
rufipennis MACQUART, *Dipt. Exot.*, *Suppl.*, II, 32.—Mex.
 BELLARDI, *Saggio*, II, 59.—Mex.
 BRAUER, *Wien. Ent. Zeitung*, II, 56.
vitripennis BELLARDI, see *Taracticus*.

CERATURGOPSIS.

- JOHNSON, *Psyche*, 1903, 111.
cornutus WIEDEMANN, *Auss. Zw.*, 1, 382 (*Dasygogon*).—No locality.
 OSTEN SACKEN, *Cat.*, 66, makes a syn. of *Ceraturgus cruciatus*.
 JOHNSON, *Psyche*, 1903, III, fig., recognized as distinct.—Ormond, Fla.

MYELAPHUS.

- BIGOT, *Bull. Soc. ent. France*, 1882, no. 9, p. 112.
 WILLISTON, *Trans. Amer. Ent. Soc.*, XI, 5, 1883.
lobicornis OSTEN SACKEN, *West. Dipt.*, 287 (*Ceraturgus*).—Ida., Cal.
 BRAUER, *Wien. Ent. Zeit.*, II, 56 (*Ceraturgus*).
 WILLISTON, *Trans. Amer. Ent. Soc.*, XI, 7; XII, 53, and XIII, 288, additional notes.—Cal.
melas BIGOT, *Bull. Soc. ent. France*, 1882, no. 9, p. 112.—Cal.
 WILLISTON, *Trans. Amer. Ent. Soc.*, XI, 5.—Kern Co., Cal.
rufus WILLISTON, *Trans. Amer. Ent. Soc.*, XI, 7; XIII, 288, notes.—Kern Co., Cal.

DICOLONUS.

- LOEW, *Cent.*, VII, 56, 1866.
 SCHINER, *Verh. Zool.-Bot. Ges.*, 1866, 847, quotes orig. desc.
simplex LOEW, *Cent.*, VII, 56.—Cal.
 WILLISTON, *Trans. Amer. Ent. Soc.*, XI, 11, pl. I, f. 4, note and fig.—S. Cal.

ECHTHODOPA.

LOEW, Cent., vii, 27, 1866; Besch. Europ. Dipt., ii, 78, obs.

SCHINER, Verh. Zool.-Bot. Ges., 1866, 848, quotes orig. desc.

formosa LOEW, Cent., x, 22.—Pa.

pubera LOEW, Cent., vii, 27.—Nebr. Mont.—Will. Ms.

DIOCTRIA.

MEIGEN, Illig. Mag., ii, 270, 1803; Syst. Besch., ii, 180, 1820.

MACQUART, Hist. Nat. Dipt., i, 289, 1834.

SCHINER, Fauna Austr., i, 119, 1862.

COQUILLET, Canad. Ent., xxv, 80, synopsis, 1893.

albus WALKER, List, ii, 301.—N. Y.

OSTEN SACKEN, West. Dipt., 287, notes.

WILLISTON, Trans. Amer. Ent. Soc., xi, 8, oc. in Conn. and Wash.

N. J.—Smith Cat.; White Mts., N. H.—Slosson.

nitida WILLISTON, Trans. Ent. Soc., xi, 8.—Wash.

parvula COQUILLET, Canad. Ent., xxv, 80.—Cal.

pusio OSTEN SACKEN, West. Dipt., 288.—Sonoma Co., Cal.

WILLISTON, Trans. Amer. Ent. Soc., xiii, 288.—Col.

resplendens LOEW, Cent., x, 21.—Cal.

rubida COQUILLET, Canad. Ent., xxv, 80.—Cal.

sackeni WILLISTON, Trans. Amer. Ent. Soc., xi, 8.—Wash.

CYRTOPOGON.

LOEW, Linnæa Ent., ii, 516, 1847.

SCHINER, Fauna Austr., i, 133, 1862.

OSTEN SACKEN, West. Dipt., 294, analyt. table of western species; Cat., 231, note 104, table of New England species.

aurifex OSTEN SACKEN, West. Dipt., 300.—Sierra Nevada Mts., Cal.

bimacula WALKER, Dipt. Saund., 102, pl. iv, f. 1 (*Euarmostus*), male.—N. A.

LOEW, Cent., vii, 61 (*Dasyopogon melanopleurus*), female; Berl. Ent.

Zeitsch., 1874, 365, syn.—White Mts., N. H.

callipedilus LOEW, Berl. Ent. Zeitsch., 1874, 358.—Cal.

OSTEN SACKEN, West. Dipt., 296.—Sierra Nevada, Cal.

WILLISTON, Trans. Amer. Ent. Soc., xi, 12, oc. in Wyo.

COQUILLET, Psyche, Jan., 1901, 149, oc. in N. M.

cerussatus OSTEN SACKEN, West. Dipt., 308.—Sonoma Co., Cal.

chrysopogon LOEW, Cent., vii, 59.—Mass.

? WALKER, List, ii, 355 (*Dasyopogon falso*).—Nova Scotia. [O. S. Cat., with ?]

Quebec—Wulp; Montreal—Chagnon; N. J.—Smith Cat.; Fla.—Johnson; Axton, N. Y.—M. & H.

cretaceus OSTEN SACKEN, West. Dipt., 302.—Sierra Nevada, Cal.

cymbalista OSTEN SACKEN, West. Dipt., 297, Sierra Nevada, Cal. (Summit Station and Webber Lake).

dasyllis WILLISTON, Kans. Univ. Quart., ii, 66.—Col.

dasylloides WILLISTON, Trans. Amer. Ent. Soc., xi, 11.—Wash.

dubius WILLISTON, Trans. Amer. Ent. Soc., xi, 13.—Ore.

evidens OSTEN SACKEN, West. Dipt., 306.—Webber Lake, Cal.

? **gibber** WILLISTON, Trans. Amer. Ent. Soc., xi, 14, pl. i, f. 9.—Cal. Gen. ref. with a ?

- leucozona** LOEW, Berl. Ent. Zeitsch., 1874, 364.—Sierra Nevada, Cal.
OSTEN SACKEN, West. Dipt., 299.—Webber Lake and Yosemite Valley, Cal.
Beulah, N. M.—Skinner.
- longimanus** LOEW, Berl. Ent. Zeitsch., 1874, 360.—San Francisco.
OSTEN SACKEN, West. Dipt., 303.—Marin Co., Cal.
- lutatus** WALKER, List, II, 357 (*Dasyopogon*).—Nova Scotia.
OSTEN SACKEN, Cat., 231, note 105.—Cayuga L., N. Y.; Mass.
- lyratus** OSTEN SACKEN, Cat., 232.—White Mts., N. H.; Catskills, N. Y.
- marginalis** LOEW, Cent., VII, 60; Berl. Ent. Zeitsch., 1874, 365, note.—Mass.
Canada—O. S. Cat.; N. J.—Smith Cat.
- montanus** LOEW, Berl. Ent. Zeitsch., 1874, 362.—Sierra Nevada, Cal.
OSTEN SACKEN, West. Dipt., 298.—Webber Lake, Cal.
Beulah, N. M.—Skinner.
- ? nebulo** OSTEN SACKEN, West. Dipt., 309.—Webber L., Cal. Gen. ref. doubted.
WILLISTON, Trans. Amer. Ent. Soc., XI, 14.—Wash.
- nugator** OSTEN SACKEN, West. Dipt., 307.—Webber L., Cal.
WILLISTON, Trans. Amer. Ent. Soc., XI, 13, oc. in Ore. and note.
- plausor** OSTEN SACKEN, West. Dipt., 297.—Morino Valley and Spanish Peaks, N. M.; Utah; Idaho.
WILLISTON, Trans. Amer. Ent. Soc., XI, 12, oc. in Col.
- positivus** OSTEN SACKEN, West. Dipt., 307.—Webber L., Cal. Ariz.—Will. Ms.
- præpes** WILLISTON, Trans. Amer. Ent. Soc., XI, 12.—Wash.
- princeps** OSTEN SACKEN, West. Dipt., 302.—Webber L., Cal.
- profusus** OSTEN SACKEN, West. Dipt., 305.—Morino Valley and Sangre de Cristo Mts., N. M. Also reported by Williston from N. M.
- rattus** OSTEN SACKEN, West. Dipt., 308.—Webber L., Cal.
- rejectus** OSTEN SACKEN, West. Dipt., 307.—Webber L., Cal.
- sudator** OSTEN SACKEN, West. Dipt., 307.—Webber L., Cal.

LASIOPOGON.

- LOEW, Linnæa Ent., II, 508, 1847; Berl. Ent. Zeitsch., 1874, 377, name changed to *Daulopogon*, on account of prior use of *Lasiopogon* in botany.
- arenicola** OSTEN SACKEN, West. Dipt., 310 (*Daulopogon*).—San Francisco.
- bivittatus** LOEW, Cent., VII, 57; Berl. Ent. Zeitsch., 1874, 370, note.—Cal.
- opaculus** LOEW, Berl. Ent. Zeitsch., 1874, 367 (*Daulopogon*).—Ill.
N. J.—Smith Cat.
- terricola** JOHNSON, Ent. News, XI, 326 (*Daulopogon*).—Ocean Co., Clementon, Wenonah, and Riverton, all in Southern N. J.
- tetragrammus** LOEW, Berl. Ent. Zeitsch., 1874, 368 (*Daulopogon*).—Can.

PLESIOMMA.

- MACQUART, Dipt. Exot., I, 2, 54, 1838.
- funesta** LOEW, Wien. Ent. Monatsch., V, 35; Cent., VII, 31.—Cuba.
JENNICKE, Neue Exot. Dipt., 48 (*Dioctria lugubris*).—Cuba. [Lw. in O. S. Cat.]
- indecora** LOEW, Cent., VII, 33.—Cuba. Jamaica—Johnson.
- leptogaster** LOEW, Cent., VII, 32.—Cuba.
- lineata** FABRICIUS, Spec. Ins., II, 465 (*Asilus*); Ent. Syst., 386 (id.); Syst. Antl., 167 (*Dasyopogon*).—West Indies.

WIEDEMANN, Dipt. Exot., 1, 221 (*Dasygogon*); Auss. Zw., 1, 385 (id.).—W. I.

? SCHINER, Verh. Zool.-Bot. Ges., 1867, 374 (query by O. S.). See *macra*. San Domingo—Will.

longiventris SCHINER, Verh. Zool.-Bot. Ges., 1867, 375.—Cuba.

macra LOEW, Wien. Ent. Monatsch., v, 35; Cent., vii, 34.—Cuba.

SCHINER, in Verh. Zool.-Bot. Ges., 1867, 374, says this is the same as *lineata*; but Osten Sacken does not accept the synonymy in his Catalogue.

unicolor LOEW, Cent., vii, 35.—N. M. West. Texas—O. S.

HOLCOCEPHALA.

JENNICKE, Neue Exot. Dipt., 51, 1867, name changed.

MACQUART, Dipt. Exot., 1, 2, 1838 (*Discocephala*, preoc.).

abdominalis SAY, Jour. Acad. Sci. Phil., iii, 50; Compl. Works, ii, 64 (*Dasygogon*).—Pa.

WIEDEMANN, Auss. Zw., 1, 412 (id.).

MACQUART, Dipt. Exot., 1, 2, 50, pl. iv, f. 2 (*Discocephala rufiventris*).—Carolina, Brazil. [O. S., in Say's Compl. Works, loc. cit.]

WALKER, List, ii, 362 (*Dasygogon ata*).—Fla., Mass. [O. S.]

VAN DER WULP, Tijdschr. v. Ent., x, 137, pl. iii, f. 10-16 (*Dasygogon laticeps*).—Wis. [Loew, in Zeitsch. f. Ges. Naturwiss., xxxvi, 115.]

N. J.—Smith Cat.; White Mts., N. H.—Slosson; Fla.—Johnson.

affinis BELLARDI, Saggio, ii, 86, pl. 1, f. 13 (*Discocephala*).—Mex.

calva LOEW, Cent., x, 35 (*Discocephala*).—Texas.

N. J.—Smith Cat.; Juniper Cr., Fla.—Johnson; West. N. Y.—O. S.

deltoidea BELLARDI, Saggio, ii, 85, pl. 1, f. 12 (*Discocephala*).—Mex.

interlineata WALKER, Trans. Ent. Soc., v, 279 (*Discocephala*).—Mex.

longipennis BELLARDI, Saggio, ii, 286, pl. 1, f. 14 (*Discocephala*).—Jalapa, Mex.

WALKER, Trans. Ent. Soc., v, 279 (*Discocephala divisa*).—Mex. [Will.]

OSTEN SACKEN, Biologia, Dipt., 1, 171, oc. in Costa Rica, and note on type.

nitida WIEDEMANN, Auss. Zw., ii, 603 (*Dasygogon*).—Mex.

WALKER, List, vi, 503.—Mex.

BELLARDI, Saggio, ii, 83, 84 (*Discocephala minuta* and *nitida*).—Tuxpango and Orizaba; Jalapa. [Will.]

WILLISTON, Biologia, Dipt., 1, 308.—Mexico, several places.

HOLOPOGON.

LOEW, Linnæa Ent., ii, 473, 1847.

SCHINER, Fauna Austr., 1, 129, 1862.

? **appendiculatus** BIGOT, Annales, 1878, 438.—Cal. Query by Bigot.

dejectus WILLISTON, Biologia, Dipt., 1, 306.—Guerrero, Mex.

guttula WIEDEMANN, Dipt. Exot., 228 (*Dasygogon*); Auss. Zw., 1, 411 (id.).—Savannah, Ga.

? WALKER, List, ii, 355.—N. Y., Ohio. Query by Walker.

Atlantic States.—O. S.; N. J.—Smith Cat.

nitidiventris BIGOT, Annales, 1878, 437.—Cal.

phænotus LOEW, Berl. Ent. Zeitsch., 1874, 366.—Texas.

philadelphicus SCHINER, Verh. Zool.-Bot. Ges., 1867, 360.—Philadelphia, Pa.

LOEW, Berl. Ent. Zeitsch., 1874, 367, note.

Ormond, Fla.—Johnson.

pulcher WILLISTON, *Biologia*, Dipt., i, 306, pl. v, f. 18.—Guerrero, Mex.

seniculus LOEW, *Cent.*, vii, 62.—Nebr.

violaceus WILLISTON, *Biologia*, Dipt., i, 306, pl. v, f. 17.—Guerrero, Mex.

PYCNOPOGON.

LOEW, *Linnaea* Ent., ii, 500, 1847.

SCHINER, *Fauna Austr.*, i, 128, 1862.

cirrhat OSTEN SACKEN, *West. Dipt.*, 293.—Mariposa Co., Cal.

WILLISTON, *Trans. Amer. Ent. Soc.*, xi, 15.—Cal.

divisus COQUILLET, *Jour. N. Y. Ent. Soc.*, x, 139.—Chihuahua, Mex.

senilis BIGOT, *Annales*, 1878, 423 (*Anisopogon*).—Cal. Referred to this genus by Williston, in litt. Fla.—Johnson.

STICHOPOGON.

LOEW, *Linnaea* Ent., ii, 500, 1847.

SCHINER, *Fauna Austr.*, i, 128, 1862.

argenteus SAY, *Jour. Acad. Sci. Phil.*, iii, 51; *Compl. Works*, ii, 65 (*Dasyopogon*). Pa. and Md.

WIEDEMANN, *Auss. Zw.*, i, 409 (id.).

Atlantic States: not rare on seabeaches.—O. S.; N. J.—Smith Cat.

candidus MACQUART, see *trifasciatus*.

catulus OSTEN SACKEN, *Biologia*, Dipt., i, 170.—N. Sonora, Mex.

trifasciatus SAY, *Jour. Acad. Sci. Phil.*, iii, 51; *Compl. Works*, ii, 64 (*Dasyopogon*).—Pa. and Md.

MACQUART, *Dipt. Exot.*, Suppl., i, 67 (*Dasyopogon candidus*); Suppl., iv, 69, pl. vi, f. 13 (*D. fasciventris*).—Vera Cruz; Mex.

WALKER, *List*, i, 223 (*Thereva plagiata* HARRIS,—a manuscript name); *Trans. Ent. Soc.*, v, 277 (*Dasyopogon gelascens*).—Mass.; Mex.

BELLARDI, *Saggio*, ii, 78 (*Dasyopogon*).—Mex.

WILLISTON, *Trans. Amer. Ent. Soc.*, xiii, 289, oc. and preceding synonymy.—New England, Kans., and S. Cal.

TOWNSEND, *Proc. Cal. Acad. Sci.*, iv, 598, oc. in Lower Cal.

N. J.—Smith Cat.

HABROPOGON.

LOEW, *Linnaea* Ent., ii, 463, 1847.

SCHINER, *Fauna Austr.*, i, 126, 1864.

WILLISTON, *Trans. Amer. Ent. Soc.*, xi, 10, 1883.

? **lineatus** WILLISTON, loc. cit., pl. i, f. 6.—Cal. Query by Will., in litt.

CALLINICUS.

LOEW, *Cent.*, x, 32, 1872.

calcaneus LOEW, *Cent.*, x.—Cal.

OSTEN SACKEN, *West. Dipt.*, 291, oc. in Marin Co., Cal.; Cat. gives Sonoma Co., Cal.

BIGOT, *Annales*, 1878, 411 (*Dasyopogon bilimbatus*).—Cal.

HETEROPOGON.

LOEW, *Linnaea*, Ent., ii, 488, 1847; *Berl. Ent. Zeitsch.*, 1874, 377, changes name to *Anisopogon*, on account of prior use of *Heteropogon* in botany.

COQUILLET, *Canad. Ent.*, xxv, 20, 1893, table of species (*Anisopogon*).

gibbus LOEW, *Cent.*, vii, 58.—Pa.

WALKER, List, II, 356 (*Dasygogon macerinus*).—Trenton Falls, N. Y. [O. S.]

humilis BELLARDI, Saggio, II, 77.—Mex.

lautus LOEW, Cent., x, 34.—Texas.

WILLISTON, Trans. Amer. Ent. Soc., XI, 16 (*Anisopogon*).—Wash., Cal.

ludius COQUILLETT, Canad. Ent., XXV, 20 (*Anisopogon*).—Los Angeles and San Bernardino Cos., Cal.; Brit. Col.

patruelis COQUILLETT, Canad. Ent., XXV, 21 (*Anisopogon*).—Texas.

phœnicurus LOEW, Cent., x, 33.—Texas.

rejectus WILLISTON, Biol. Centr. Amer., Dipt., I, 307.—Mex.; Venta de Zopilote.

rubidus COQUILLETT, Canad. Ent., XXV, 21 (*Anisopogon*).—Los Angeles Co., Cal.

senilis BIGOT, see *Pycnopogon*.

vespoides BIGOT, Annales, 1878, 423 (*Anisopogon*).—Cal.

NEOLAPARUS.

WILLISTON, Psyche, 1885, 255, change of name.

LOEW, Bemerkungen über Asiliden, 4, 1851 (*Laparus*, preoc.).

? **pictitarsis** BIGOT, Annales, 1878, 417.—Cal. Query by Bigot.

WILLISTON, Trans. Amer. Ent. Soc., XI, 25, notes; does not belong to this genus.

SAROPOGON.

LOEW, Linnæa Ent., 439, 1847; Bemerk. über Asil., 5, 1851.

SCHINER, Fauna Austr., I, 125, 1862; Verh. Zool.-Bot., Ges., 1866, 653.

abbreviatus JOHNSON, Psyche, 1903, 113.—San Antonio, Tex.

adustus LOEW, Berl. Ent. Zeitsch., 1874, 375.—Texas.

WILLISTON, Trans. Amer. Ent. Soc., x, 23.—Kans.

bicolor JOHNSON, Psyche, 1903, 113.—San Antonio, Tex.

combustus LOEW, Berl. Ent. Zeitsch., 1874, 373.—Texas.

WILLISTON, Trans. Amer. Ent. Soc., XI, 23.—Kans.

dispar COQUILLETT, Jour. N. Y. Ent. Soc., x, 139.—Cuero and Columbus, Tex.

pulcherrimus WILLISTON, Biologia, Dipt., I, 312, pl. VI, f. 3.—Guerrero, Mex.

senex OSTEN SACKEN, Biologia, Dipt., I, 179.—Presidio, Mex.

BLEPHAREPIUM.

RONDANI, Studi Ent., I, 89, 1848.

LYNCH, A. (ENRIQUE), Asilides Argentinos, 3, in Anal. Soc. Cient. Argentina, VIII, 145-153, 1879 (*Planctolcstes*).

OSTEN SACKEN, Biologia, Dipt., I, 171, 1887, rejects *Blepharepium*.

WILLISTON, Biologia, Dipt., I, 310, 1892.

coarctatum PERTY, Delectus Animal., 181, pl. XXXVI, f. 4 (*Laphria*).—Brazil.

MACQUART, Dipt. Exot., I, 2, 194 (*Dasygogon bonariensis*).—Argentina.

WALKER, List, VI, 439 and 504 (*Das. bonariensis* and *coarctatum*).—Buenos Aires and Rio Negro.

WALKER, Dipt. Saund., 455 (*Dasygogon subcontractus*).—Amazon.

WALKER, Trans. Ent. Soc., v, 276 (*Dasygogon secabilis*).—Mex.

BIGOT, in Sagra's Cuba, 789, pl. XX, f. 3 (*Senobasis annulatus*).—Cuba.

BELLARDI, Saggio, II, 63, pl. I, f. 4 (*Das. secabilis*).—Mex.

SCHINER, Verh. Zool.-Bot. Ges., 1866, 701 (*Senobasis secabilis*); 1867, 371 (*Sen. auricinctus*).—Surinam. [Loew.]

LYNCH, A. (ENRIQUE), Anal. Soc. cient. Argent., VIII, 145, synonymy. —Argentina.

VAN DER WULP, Tijdschr. v. Ent., XXV, 88.—Argentina.

OSTEN SACKEN, *Biologia*, Dipt., I, 171 (*Planctolestes scabibilis*).—Mexico, several places; Guatemala; Panama.

SNOW, *Kans. Univ. Quart.*, IV, 177.

WILLISTON, *Biologia*, Dipt., I, 310, oc. in several Mexican localities.

Note.—Osten Sacken uses the name *scabibilis* for the Mexican form, because he has examined the type. The further synonymy is less certain.

DEROMYIA.

PHILIPPI, *Verh. Zool.-Bot. Ges.*, XV, 705, 1865.

SCHINER, *Verh. Zool.-Bot. Ges.*, XVI, 653, 1866.

LOEW, *Cent.*, VII, 36, 1866 (*Diogmites*).

VAN DER WULP, *Tijdsch. v. Ent.*, XXV, 92, 1882.

WILLISTON, *Trans. Amer. Ent. Soc.*, XI, 24, 1883; *Psyche*, 1889, 256; *Biologia*, Dipt., I, 310, 1901.

OSTEN SACKEN, *Biologia*, Dipt., I, 173, 1887 (*Diogmites*).

affinis BELLARDI, *Saggio*, 73 (*Saropogon*).—Mex.

angustipennis LOEW, *Cent.*, VII, 41 (*Diogmites*).—"Kansas; Matamoras."

WILLISTON, *Trans. Amer. Ent. Soc.*, XI, 25, note.

annulata BIGOT, see *Blepharepium coarctatum*.

basalis WALKER, see *umbrina*.

bicolor JENNICKE, *Neue Exot. Dipt.*, 49 (*Saropogon*).—Panama.

bigotii BELLARDI, *Saggio*, II, 70 (*Saropogon*).—Mex.

St. Augustine and Ormond, Fla.—Johnson.

bilineata LOEW, *Cent.*, VII, 40 (*Diogmites*).—Cuba.

VAN DER WULP, *Tijdsch. v. Ent.*, XVII (sep.) 2, says this is a synonym of *basalis* WALKER "without the least doubt"; Osten Sacken, however, in *Cat.*, 233, note 108, says the type of *basalis* is either an *umbrina* or a *discolor*. Conn.—Wulp.

brunnea FABRICIUS, *Mantissa Ins.*, II, 359 (*Asilus*); *Ent. Syst.*, IV, 382 (id.); *Syst. Antl.*, 165 (*Dasyopogon*).—Cayenne, S. A.

WIEDEMANN, *Dipt. Exot.*, I, 219 (id.); *Auss. Zw.*, I, 382 (id.).—Cayenne.

? MACQUART, *Dipt. Exot.*, I, 2, 34 (id.).—Cayenne; Philadelphia. Query by O. S.

BELLARDI, *Saggio*, II, 67 (*Saropogon*).—Mex.

craverii BELLARDI, *Saggio*, II, 68 (*Saropogon*).—Mex.

OSTEN SACKEN, *Biologia*, Dipt., I, 178, note on types (*Diogmites*).

cuantlensis BELLARDI, *Saggio*, II, 68 (*Saropogon*).—Cuantla, Mex.

OSTEN SACKEN, *Biologia*, Dipt., I, 175 (*Diogmites*).—Guatemala.

discolor LOEW, *Cent.*, VII, 37 (*Diogmites*).—Pa.

? MACQUART, *Hist. Nat. Dipt.*, I, 295 (*Dasyopogon rufescens*).—Philadelphia.

? WALKER, *List*, VI, 426 (id.).

OSTEN SACKEN, *Cat.* 232, note on types and syn.

WILLISTON, *Trans. Amer. Ent. Soc.*, XI, 25, oc. in Pa.

N. J.—Smith *Cat.* See *bilineata*.

dubia BELLARDI, *Saggio*, II, 74 (*Saropogon*).—Mex.

duillia WALKER, *List*, II, 340 (*Dasyopogon*).—Honduras.

OSTEN SACKEN, *Biologia*, Dipt., I, 178, note (*Diogmites*).

goniostigma BELLARDI, *Saggio*, II, 65, pl. I, f. 6 (*Saropogon*).—Mex.

hypomelas LOEW, *Cent.*, VI, 42 (*Diogmites*).—Pecos R., Texas.

jalapensis BELLARDI, *Saggio*, II, 65, pl. I, f. 5 (*Saropogon*).—Jalapa, Mex.

OSTEN SACKEN, *Biologia*, Dipt., I, 177, note on type (*Diogmites*).

WILLISTON, *Biologia*, Dipt., I, 311, oc. in several places in Mex.; Yucatan.

- lindigi** SCHINER, Novara, 165 (*Dasygogon*).—S. A.
 OSTEN SACKEN, Dipt., 1, 174 (*Diogmites*), oc. in Panama.
- memnon** OSTEN SACKEN, Biologia, Dipt., 1, 174, pl. III, f. 9 (*Diogmites*).—Costa Rica, Panama.
- nigripennis** MACQUART, Dipt. Exot., Suppl., II, 34, pl. 1, f. 6 (*Dasygogon*).—Mex.
 BELLARDI, Saggio, II, 75 (*Saropogon*).—Mex.
- nigripes** BELLARDI, Saggio, II, 75 (*Saropogon*).—Mex., Playa Vicente.
- platyptera** LOEW, Cent., VII, 36 (*Diogmites*).—Ill.
- pseudojalapensis** BELLARDI, Saggio, App., 23 (*Dasygogon*).—Tuxpango and Orizaba, Mex.
- rubescens** BELLARDI, Saggio, II, 71 (*Saropogon*).—Tuxpango, Mex.
 OSTEN SACKEN, Biologia, Dipt., 1, 176 (*Diogmites*).—Orizaba, Mex.
- rufescens** MACQUART, see *discolor*.
- sallæi** BELLARDI, Saggio, II, 70 (*Saropogon*).—Tuxpango, Mex.
 OSTEN SACKEN, Biologia, Dipt., 1, 174, pl. III, f. 8 (*Diogmites*).—N. Sonora, Ventenas, and Presidio, Mex.
- WILLISTON, Biologia, Dipt., 1, 311, oc. in many Mexican localities.
- symmacha** LOEW, Cent., X, 26.—Texas. (*Diogmites*).
- tau** OSTEN SACKEN, Biologia, Dipt., 1, 176, pl. III, f. 11 (*Diogmites*).—Panama.
- ternata** LOEW, Cent., VII, 38 (*Diogmites*).—Cuba.
 St. Augustine, Fla.—Johnson.
- ? **tricolor** BELLARDI, Saggio, II, 72 (*Saropogon*).—Mex. Query by O. S., in Cat.
- umbrina** LOEW, Cent., VII, 43 (*Diogmites*).—N. Y., Ill.
 ? WALKER, Dipt. Saund., 95 (*Dasygogon basalis*).—U. S. Query by O. S.; see note under *bilineata*.
 ? WALKER, List, II, 339 (*Dasygogon herennius*).—Cincinnati. Query by J. M. A.
 OSTEN SACKEN, Cat., 233, note on type of *basalis*.
 WILLISTON, Trans. Amer. Ent. Soc., XI, 25, note.
 Mass.—O. S.; N. J.—Smith Cat.
- virescens** BELLARDI, Saggio, II, 72 (*Saropogon*).—Mex.
- winthemi** WIEDEMANN, Dipt. Exot., 223; Auss. Zw., 1, 387 (*Dasygogon*).—S. A.
 ? LOEW, Cent., VII, 39 (*Diogmites misellus*).—D. C.
 SCHINER, Verh. Zool.-Bot. Ges., 1866, 678 (*Dasygogon*).
 VAN DER WULP, Tijdsch. v. Ent., XXV, 93; XXVII (sep.), 2, oc. in Conn., notes.
 WILLISTON, Trans. Amer. Ent. Soc., XI, 24, pl. II, f. 6, synonymy.
 OSTEN SACKEN, Biologia, Dipt., 1, 177, doubts identity of *misellus*.
 N. J.—Smith Cat.; Fla.—Johnson.

LESTOMYIA.

- WILLISTON, Trans. Amer. Ent. Soc., XI, 19, 1883.
 OSTEN SACKEN, West. Dipt., 292, 1878 (*Clavator Phillippi*).
- fraudigera** WILLISTON, Trans. Amer. Ent. Soc., XI, 21.—Cal.
- sabulum** OSTEN SACKEN, West. Dipt., 292 (*Clavator*).—Cal.
 WILLISTON, Trans. Amer. Ent. Soc., XI, 20, pl. II, f. 4.—Kern Co., Cal., and Northern Cal.

LASTAURUS.

- LOEW, Bemerkungen über Asiliden, II, 1851.
- anthracinus** LOEW, loc. cit., 12.—Mex.
 OSTEN SACKEN, Biologia, Dipt., 1, 179, pl. III, f. 10.—Guatemala.

mutabilis LOEW, loc. cit., 12.—Venezuela.

OSTEN SACKEN, *Biologia*, Dipt., 1, 180.—Costa Rica and Panama.

TARACTICUS.

LOEW, *Cent.*, vol. II, 240, note; 1872.

brevicornis WILLISTON, see *Cophura*.

? *niger* MACQUART, *Dipt. Exot.*, 1, 2, 25, pl. II, f. 1 (*Ceraturgus*).—N. A.

WALKER, *List*, VI, 378, pt. desc. (id.).

OSTEN SACKEN, *Catalogue*, gen. ref.

BRAUER, *Wien. Ent. Zeit.*, II, 54, 56 (*Ceraturgus*).

WILLISTON, *Trans. Amer. Ent. Soc.*, XI, 22, doubts the generic position.

nigrimystaceus WILLISTON, *Biologia*, Dipt., 1, 313, pl. v, f. 23.—Guerrero, Mex.

nigripes WILLISTON, *Biologia*, Dipt., 1, 313.—Guerrero, Mex. "May not be distinct from *similis*."

octopunctatus SAY, *Jour. Acad. Sci. Phil.*, III, 99; *Compl. Works*, II, 63 (*Dioctria*). U. S.

WIEDEMANN, *Auss. Zw.*, 1, 365 (id.).—N. A.

WALKER, *List*, VI, 387 (id.).

SCHINER, *Verh. Zool.-Bot. Ges.*, 1866, 675; 1867, 369 (id.).

WILLISTON, *Trans. Amer. Ent. Soc.*, XI, 22, pl. II, f. 2, 2a.

Atlantic States—O. S.; N. J.—Smith Cat.; White Mts., N. H.—Slosson;

Fla.—Johnson; S. D.—J. M. A.

similis WILLISTON, *Biologia*, Dipt., 1, 312.—Guerrero, Mex.

vitripennis BELLARDI, *Saggio*, II, 60 (*Ceraturgus*).—Cuantla, Mex.

OSTEN SACKEN, *Cat.*, 66, "can hardly be a *Ceraturgus*."

BRAUER, *Wien. Ent. Zeit.*, II, 56.

SNOW, *Kans. Univ. Quart.*, IV, 179, gen. ref.

WILLISTON, *Biologia*, Dipt., 1, 313, oc. in Chilpancingo, Mex., and notes.

COPHURA.

OSTEN SACKEN, *Biologia*, Dipt., 1, 181, 1886.

LOEW, *Cent.*, X, 24, 1872 (*Blax*, preoc.); *Berl. Ent. Zeitsch.*, 1874, 377 (*Blacodes*, preoc.).

WILLISTON, *Manual N. A. Dipt.*, 57, 1896 (*Larwiella*, preoc.); *Biologia*, Dipt., 1, 314, 1901, list of species.

bella LOEW, *Cent.*, X, 24 (*Blax*).—Texas.

? *brevicornis* WILLISTON, *Trans. Amer. Ent. Soc.*, XI, 22, pl. II, f. 3 (*Taracticus*); XII, 54, refers to *Aphamartania*; *Biologia*, Dipt., 1, 314, refers here with a doubt.—Wash.

clausa COQUILLET, *Canad. Ent.*, XXV, 34 (*Blacodes*).—Cal.

cristata COQUILLET, *Canad. Ent.*, XXV, 33 (*Blacodes*).—Cal.

fur WILLISTON, *Trans. Amer. Ent. Soc.*, XII, 53 (*Aphamartania*).—Ariz.

humilis WILLISTON, *Biologia*, Dipt., 1, 315.—Guerrero, Mex.

pulchella WILLISTON, *Biologia*, Dipt., 1, 314, pl. v, f. 24.—Guerrero, Mex.

scitula WILLISTON, *Trans. Amer. Ent. Soc.*, XI, 19, pl. II, f. 1, 1a (? *Nicocles*).—Wash.

sodalis OSTEN SACKEN, *Biologia*, Dipt., 1, 181, pl. III, f. 13.—Presidio, Mex.

Jalisco, Mex.—Williston.

trunca COQUILLET, *Canad. Ent.*, XXV, 34 (*Blacodes*).—Los Angeles Co., Cal.

NICOCLES.

JÆNNICKE, *Neue Exot. Dipt.*, 47, 1867.

LOEW, *Cent.*, VII, 28, 1866 (*Pygostolus*, preoc.).

WILLISTON, Trans. Amer. Ent. Soc., XI, 16, 1883.

COQUILLETT, Canad. Ent., XXV, 119, table of species, 1893.

abdominalis WILLISTON, Trans. Amer. Ent. Soc., XI, 17, pl. 1, f. 14.—Cal.

æmulator LOEW, Cent., x, 25 (*Pygostolus*).—Cal.

analis JENNICKE, Neue Exot. Dipt., 47, pl. 1, f. 13.—Mex.

argentatus COQUILLETT, Canad. Ent., XXV, 119.—Los Angeles and San Bernardino Cos., Cal.

dives LOEW, Cent., VII, 29 (*Pygostolus*).—Cal. Sonoma Co., Cal.—O. S.

pictus LOEW, Cent., VII, 30 (*Pygostolus*).—D. C.

N. J.—Smith Cat.; St. Augustine, Fla.—Johnson.

politus SAY, Jour. Acad. Sci. Phil., III, 52; Compl. Works, II, 65 (*Dasybogon*).—Pa. and Md.

WIEDEMANN, Auss. Zw., I, 405 (*id.*).

WALKER, List, VI, 421 (*id.*).

LOEW, Cent., VII, 28 (*Pygostolus argentifer*), male.—D. C.

Mass.—O. S.; N. J.—Smith Cat.

rufus WILLISTON, Trans. Amer. Ent. Soc., XI, 18, pl. 1, f. 15.—Wash.

scitulus WILLISTON, see *Cophura*.

DASYPOGON.

MEIGEN, Illig. Mag., II, 270, 1803.

Note.—In the restricted sense, this genus does not occur in N. A. There are a few descriptions coming under this genus in the old sense which have never been elucidated, and perhaps never will be.

angustus MACQUART, Dipt. Exot., Suppl., III, 20.—Hayti.

bilimbatus BIGOT, see *Callinicus calcaneus*.

cepphicus SAY, Jour. Acad. Sci. Phil., VI, 158; Compl. Works, II, 354.—Mex.

mexicanus MACQUART, Dipt. Exot., Suppl., I, 68.—Mex.

nigritarsis MACQUART, Dipt. Exot., Suppl., I, 68.—Mex.

parvus BIGOT, in Sagra's Cuba, 789.—Cuba.

quadrinotatus BIGOT, Annales, 1878, 412.—Cal.

rubiginosus BIGOT, Annales, 1878, 419 (*Scilopogon*).—N. A. I put the species here, because Rondani makes *Scilopogon* identical with his *Cheilopogon*, which in turn Schiner makes a synonym of *Dasybogon* in the narrow sense.

PSEUDORUS.

WALKER, Dipt. Saund., 103, pl. IV, f. 5, 1853.

SCHINER, Verh. Zool.-Bot. Ges., 1866, 653.

OSTEN SACKEN, Biologia, Dipt., I, 183, corrects error of Schiner.

bicolor BELLARDI, Saggio, II, 11, pl. 1, f. 20.—Playa Vicente, Mex.

OSTEN SACKEN, Biologia, Dipt., I, 183.—Guatemala.

WILLISTON, Biologia, Dipt., I, 315, oc. in Mex. (Amula, Acapulco, Atoyac, etc.).

DORYCLUS.

JENNICKE, Abh. Senckenb. Ges., VI, 365, 1867.

MACQUART, Hist. Nat. Dipt., I, 288 (*Megapoda* preoc.), 1834.

WALKER, List, VII, 564, 1855 (*Ampyr.* preoc.).

SCHINER, Novara, 156, synonymy.

LYNCH ARRIE, F., Anal. Soc. cient. Argent., XIII, syn.

OSTEN SACKEN, Biologia, Dipt., I, 182, notes.

ROEDER, Berl. Ent. Zeitsch., XXXI, 76, 1887, important discussion.

distendens WIEDEMANN, Auss. Zw., I, 571 (*Asilus*).—Brazil.

MACQUART, Dipt. Exot., Suppl., I, 198, pl. VII, f. 11, male (*Megapoda cras-sitarsis*); 199, pl. VII, f. 12, female (*M. cyaneiventris*).—Brazil; Mex.

WALKER, List, VII, 564 (*Amphyx varipennis*).—Brazil.

VAN DER WULP, Tijdschr. v. Ent., XIII, 115, pl. IX, f. 7-12 (*Doryclus latipes*).—Surinam.

JÆNNICKE, Neue Exot. Dipt. (Abh. Senckenb. Ges.), 366, pl. XLIV, f. 3.

OSTEN SACKEN, Biologia, Dipt., I, 182 (*varipennis* and *cyaneiventris*).—Guatemala.

ROEDER, Berl. Ent. Zeitsch., XXXI, 1887, 76, synonymy.

WILLISTON, Psyche, 1889, 256.—Brazil.

ATONIA.

WILLISTON, Psyche, 1889, 257.

brevistylata WILLISTON, Biologia, Dipt., I, 316.—Teapa, Mex.

mikii WILLISTON, Trans. Amer. Ent. Soc., XIII, 290 (*Atomosia*, *Atractia*).—San Domingo.

APHESTIA.

SCHINER, Verh. Zool.-Bot. Ges., 1866, 673.

WILLISTON, Psyche, 1889, 257.

nigra BIGOT, Annales, 1878, 235.—Mex.

mexicana WILLISTON, Biologia, Dipt., I, 317, pl. VI, f. 2.—Mexico; Amula, Atoyac.

CEROTAINIA.

SCHINER, Verh. Zool.-Bot. Ges., 1866, 673; Novara, 170, 1868.

WILLISTON, Psyche, 1889, 257.

dubia BIGOT, Annales, 238, 1878.—Mex.

macrocera SAY, Jour. Acad. Sci. Phil., III, 73; Compl. Works, II, 67 (*Laphria*).—Pa.

WIEDEMANN, Auss. Zw., I, 531 (id.).

N. J.—Smith Cat.; Jamaica—Johnson.

nigra BIGOT, Annales, 1878, 238.—Mex.

nigripennis BELLARDI, Saggio, II, 191 (*Atomosia*).—Mex.

SCHINER, Verh. Zool.-Bot. Ges., 1866, 706.

ATOMOSIA.

MACQUART, Dipt. Exot., I, 2, 73, 1838.

SCHINER, Verh. Zool.-Bot. Ges., 1866, 661, notes.

OSTEN SACKEN, Biologia, Dipt., I, 183, note, 1887.

WILLISTON, Psyche, 1889, 257, table of genera of the *Atomosia* group.

anonyma WILLISTON, Biologia, Dipt., I, 316.—Mexico, Teapa.

beckeri JÆNNICKE, Neue Exot. Dipt., 51.—Mex.

? **bigoti** BELLARDI, Saggio, II, 20.—Mex.; gen. ref. with a query.

eupoda BIGOT, Annales, 1878, 234 (*Cormansis*).—Mex. I place here because Bigot intimates that the genus is not distinct.

glabrata SAY, Jour. Acad. Sci. Phil., III, 53; Compl. Works, II, 66 (*Laphria*).—U. S.

MACQUART, Dipt. Exot., Suppl., II, 39 (*rufipes*).—Philadelphia. [Johnson.]

Atlantic States—O. S.

incisuralis MACQUART, Dipt. Exot., I, 2, 76, pl. VII, f. 1.—Cuba.

BIGOT, in Sagra's Cuba, 788.

macquartii BELLARDI, Saggio, II, 20.—Mex.

WILLISTON, Biologia, Dipt., I, 316.—Mex.—Amula, Atoyac, Teapa, Yucatan,

mucida OSTEN SACKEN, Biologia, Dipt., I, 184.—Presidio, Mex.

WILLISTON, Biologia, Dipt., I, 315.—Yucatan, Mexico.

puella WIEDEMANN, Auss. Zw., I, 531 (*Laphria*).—No locality.

SCHINER, Verh. Zool.-Bot. Ges., 1866, 706, oc. in N. A.

MACQUART, Hist. Nat. Dipt., I, 287 (*Laphria pygmæa*).—Ga. [O. S.]

? WALKER, List, II, 386 (? *Laphria echemon*).—Ohio.

JOHNSON, Psyche, 1903, 114, notes.—Gulf States and Phil.

N. J.—Smith Cat.; Fla.—Johnson.

rufipes MACQUART, see *glabrata*.

sayii JOHNSON, Psyche, 1903, 113.—Philadelphia and Delaware Co., Pa.

SAY, Journ. Acad. Sci. Phil., III, 54; Compl. Works, II, 66 (*Laphria glabrata*, var. a).—U. S.

sericans WALKER, Trans. Ent. Soc., v, 282.—Mex.

similis BIGOT, in Sagra's Cuba, 788, pl. xx, f. 4.—Cuba.

soror BIGOT, Annales, 1878, 236.—Mex.

JOHNSON, Psyche, 1903, 114, brief desc.

tibialis MACQUART, Dipt. Exot., Suppl., I, 76.—Yucatan.

xanthopus WIEDEMANN, Auss. Zw., I, 529 (*Laphria*).—Brazil.

VAN DER WULP, Tijdsch. v. Ent., xxv, 105, oc. in Mex.

SCHINER, Verh. Zool.-Bot. Ges., XVI, 693.

POGONOSOMA.

RONDANI, Dipt. Ital. Prod., I, 160, 1856.

arachnoides BIGOT, Annales, 1878, 227.—Mex.

dorsatum SAY, Amer. Ent., I, pl. I, f. 3; Compl. Works, I, 13 (*Laphria*).—Pa.

WIEDEMANN, Auss. Zw., I, 506 (*Laphria*).

Ida., Wash.—J. M. A.

melanoptera WIEDEMANN, Auss. Zw., I, 514 (*Laphria*).—No locality.

SCHINER, Verh. Zool.-Bot. Ges., 1866, 707, oc. in S. C.

WILLISTON, Trans. Amer. Ent. Soc., XII, 56.—Fla. N. J.—Smith Cat.

HYPERECHIA.

SCHINER, Verh. Zool.-Bot. Ges., XVI, 673, 1866.

WILLISTON, Trans. Amer. Ent. Soc., XI, 27, 1883.

atrox WILLISTON, loc. cit., 28.—Pa.

N. J.—Smith Cat. Lansing, Mich.—J. M. A.

NUSA.

WALKER, Dipt. Saund., 105, 1853.

RONDANI, Dipt. Ital. Prod., I, 160, 1856 (*Andrenosoma*).

WILLISTON, Psyche, 1889, 255, note on priority.

abdominalis BROWN, Kans. Univ. Quart., VI, 103, 1897.—Bernalillo Co., N. M.

cincta BELLARDI, Saggio, II, 18, pl. I, f. 19 (*Laphria*).—Mex.

OSTEN SACKEN, Biologia, Dipt., I, 188 (*Andrenosoma*).—Brit. Honduras.

cinerea BELLARDI, Saggio, II, 16, pl. I, f. 16 (*Lampria*).—Mex.

OSTEN SACKEN, Biologia, Dipt., I, 188, notes on type, etc. (*Andrenosoma*).—Panama.

chalybea WILLISTON, Trans. Amer. Ent. Soc., XII, 56 (*Andrenosoma*).—San Domingo.

- formidolosa** WALKER, Trans. Ent. Soc., v, 280 (*Laphria*).—Mex.
 BELLARDI, Saggio, II, 17, pl. I, f. 18 (id.).—Cordova, Mex.
 OSTEN SACKEN, Biologia, Dipt., I, 188 (*Andrenosoma*).—Guatemala, Nicaragua, Panama.
- fulvicauda** SAY, Jour. Acad. Sci. Phil., III, 53, pl. VI; Compl. Works, I, 12 (*Laphria*).—Cote sans Dessein, on Mo. Riv.
 WIEDEMANN, Auss. Zw., I, 517 (*Laphria pyrrhacra*; no apparent reason for the change of name).—Brazil, Savannah, and Mo.
 Me., Cal.—Williston; Fla.—Johnson; Montreal—Chagnon.
- rubida** WILLISTON, Biologia, Dipt., I, 318.—Mexico, Atoyac.
- similis** BROWN, Kans. Univ. Quart., VI, 102, 1897.—Bernalillo Co., N. M.
- xanthocnema** WIEDEMANN, Auss. Zw., I, 509 (*Laphria*).—Brazil.
 MACQUART, Dipt. Exot., I, 2, 67 (id.).—West Indies.
 VAN DER WULP, Tijdsch. v. Ent., XXV, 104.
- sexpunctata** WILLISTON, Biologia, Dipt., I, 319, pl. VI, f. 4.—Mexico, Amula.

LAMPRIA.

- MACQUART, Dipt. Exot., I, 2, 60, 1838.
- aurifex** OSTEN SACKEN, Biologia, Dipt., I, 187.—Costa Rica.
 BELLARDI, Saggio, II, 13 (*clavipes* Fabr.).—Orizaba, Mex. [O. S.]
- bicolor** WIEDEMANN, Auss. Zw., I, 522 (*Laphria*).—No locality.
 ? SAY, Jour. Acad. Sci. Phil., VI, 158; Compl. Works, II, 355 (*Laphria saniosa*).—Ind.
 MACQUART, Hist. Nat. Dipt., I, 284 (*megacera*).—Philadelphia. [O. S.]
 WALKER, List, II, 379, and VII, 527 (*antæa*).—Fla., and Brit. N. A.
 WILLISTON, Trans. Amer. Ent. Soc., XI, 32.—Conn., Pa.
 N. J.—Smith Cat.; Ormond, Fla.—Johnson; Province of Quebec—Fyles.
- circumdata** BELLARDI, Saggio, II, 15, pl. I, f. 17.—Mex.
- clavipes** FABRICIUS, Syst. Antl., 162 (*Laphria*).—S. A.
 WIEDEMANN, Dipt. Exot., I, 237; Auss. Zw., I, 513 (*Laphria*).—Brazil.
 MACQUART, Dipt. Exot., I, 2, 61; Suppl., III, 22.—Brazil.
 SCHINER, Novara, 174, says Macquart's second description refers to another species, and describes the proper female.—Brazil.
 OSTEN SACKEN, Biologia, Dipt., I, 186.—Panama.
 For Bellardi's *clavipes* see *aurifex*.
- corallogaster** BIGOT, Annales, 1878, 227 (*Laphria*).—N. A.
- felis** OSTEN SACKEN, West. Dipt., 286.—Webber L., Cal.
 WILLISTON, Trans. Amer. Ent. Soc., XI, 32.—Wash.
- mexicana** MACQUART, Dipt. Exot., Suppl., II, 37.—Mex.
 BELLARDI, Saggio, II, 13.—Mex.
 OSTEN SACKEN, Biologia, Dipt., I, 188, note on Bellardi's specimen.
- rubriventris** MACQUART, Hist. Nat. Dipt., I, 284 (*Laphria*).—Philadelphia.
 WILLISTON, Trans. Amer. Ent. Soc., XI, 32.—Ga., Tex.
- spinipes** FABRICIUS, Syst. Antl., 162 (*Laphria*); 163 (*Laphria affinis*).—S. A.
 WIEDEMANN, Dipt. Exot., I, 240; Auss. Zw., I, 525, desc. and syn.—Brazil.
 OSTEN SACKEN, Biologia, Dipt., I, 187.—Panama.

DASYLLIS.

- LOEW, Bemerkungen über Asiliden, 20, 1851.
- SNODGRASS, Psyche, 1902, 309, 1 pl., structure of hypopygium.
- affinis** MACQUART, Dipt. Exot., Suppl., v, 54 (*Laphria*).—Baltimore.

OSTEN SACKEN, Cat., 75 and 233, note on type (placed as a synonym of *D. thoracica*).

JOHNSON, Ent. News, XIII, 77, reasons for believing it distinct; oc. at Jackson, Ala.; Tifton, Ga.; and in N. J.

astur OSTEN SACKEN, West. Dipt., 285.—Cal., several places.

WILLISTON, Trans. Amer. Ent. Soc., XI, 27.—Cal., Wash., Ore.

columbica WALKER, in Lord's Naturalist, etc.—Vancouver Id.

OSTEN SACKEN, West. Dipt., 285, quotes Walker.

WILLISTON, Trans. Amer. Ent. Soc., XI, 27.—Ore., Wash.

fascipennis MACQUART, Hist. Nat. Dipt., I, 284 (*Laphria*); Dipt. Exot., Suppl., I, 74 (*L. prapotens*).—Cayenne, S. A.

SCHINER, Novara, 172, oc. in Central America.

flavicollis SAY, Long's Exped., App., 374; Compl. Works, I, 255 (*Laphria*).—N. W. Terr.

WIEDEMANN, Auss. Zw., I, 519 (*Laphria*).

WILLISTON, Trans. Amer. Ent. Soc., XI, 25.—Conn.

Mass.—Harris Cat.; Atlantic St.—O. S.; N. J.—Smith Cat.; White Mts.—Slosson; Montreal—Chagnon; Axton, N. Y.—M. & H.; Province of Quebec.—Fyles.

grossa FABRICIUS, Spec. Ins., II, 460; Syst. Antl., 153 (*Asilus*).—S. A.

SAY, Jour. Acad. Sci. Phil., III, 74; Compl. Works, II, 67 (*Laphria tergissa*).—Pa.

WIEDEMANN, Auss. Zw., I, 502 (id.).

MACQUART, Dipt. Exot., I, 2, 68 (*L. analis*).—N. A.

HARRIS, Ins. New Engl., 3d edit., 604 (*L. flavibarbis*).

OSTEN SACKEN, Cat., 233, notes on synonymy.

WILLISTON, Trans. Amer. Ent. Soc., XI, 26.—Conn.

Quebec—Wulp; N. J.—Smith Cat.; Montreal—Chagnon; Fla.—Johnson.

lata MACQUART, Dipt. Exot., Suppl., I, 78 (*Mallophora analis*).—Galveston, Tex.: change of name in Suppl. IV, 75.

OSTEN SACKEN, Cat., 233, note on type.

posticata SAY, Long's Exped., App., 374; Compl. Works, I, 255 (*Laphria*).—N. W. Terr.

WIEDEMANN, Auss. Zw., I, 518 (*Laphria*).

MACQUART, Dipt. Exot., I, 2, 69 (id.).—Carolina.

WILLISTON, Trans. Amer. Ent. Soc., XI, 26.

Mass.—Harris Cat.; Atlantic St.—O. S.; N. J.—Smith Cat.; Montreal—Chagnon; Fla.—Johnson; Beulah, N. M.—Skinner; Axton, N. Y.—M. & H.

sacrator WALKER, List, II, 382 (*Laphria*).—Nova Scotia.

WILLISTON, Trans. Amer. Ent. Soc., XI, 26.—N. H.

Quebec, N. H., N. Y.—O. S.; Montreal—Chagnon.

saffrana FABR., see *Laphria*.

thoracica FABRICIUS, Syst. Antl., 158 (*Laphria*; in erratis the name is changed to *fulvithorax*, which Wiedemann does not accept).—N. A.

WIEDEMANN, Dipt. Exot., 236; Auss. Zw., I, 511.

WALKER, List, II, 383 (*L. alcanor*).—Mass. [O. S., from type.]

WILLISTON, Trans. Amer. Ent. Soc., XI, 26.—Conn., Pa.

LEBARON, in Prairie Farmer, July 13, 1872, notes it killing bees.

N. J.—Smith Cat.; Montreal—Chagnon.

unicolor WILLISTON, Trans. Amer. Ent. Soc., XI, 26.—Wash.

LAPHRIA.

- MEIGEN, Illig. Mag., II, 270, 1803; Syst. Besch., II, 215, 1820.
 MACQUART, Hist. Nat. Dipt., I, 280, 1834.
 SCHINER, Fauna Austr., I, 137, 1862.
 WILLISTON, Trans. Amer. Ent. Soc., XII, 54, table of species.
 SNODGRASS, Psyche, 1902, 399, 1 pl., structure of hypopygium.
æatus WALKER, List, II, 381.—Martin Falls, Canada, and Nova Scotia.
 White Mts., N. H.—O. S.
amanda WALKER, List, II, 373.—Guatemala.
anthrax WILLISTON, see *carbonarius*.
bilineata WALKER, see *gilva*.
canis WILLISTON, Trans. Amer. Ent. Soc., XI, 31.—Conn.
 TOWNSEND, Insect Life, II, 43 and 162, oc. in Mich.
 White Mts., N. H.—Slosson; N. J.—Smith Cat.; Montreal—Chagnon.
carbonarius WILLISTON, K. U. Quart., IV, 173, change of name; Trans. Amer. Ent. Soc., XI, 29 (*anthrax*, preoc.).—N. California.
 Beulah, N. M.—Skinner (*anthrax*).
carolinensis SCHINER, Verh. Zool.-Bot. Ges., 1867, 380.—Carolina.
cœrulea WILLISTON, Biologia, Dipt., I, 317.—Atoyac, Mex.
componens WALKER, Trans. Ent. Soc., V, 281.—Mex.
corallogaster BIGOT, see *Lampria*.
ferox WILLISTON, Trans. Amer. Ent. Soc., XI, 29.—Wash.
flavescens MACQUART, Dipt. Exot., I, 2, 69.—Carolina and the Pyrenees Mts. of Europe (Macquart's statement—very doubtful).
flavipila MACQUART, Hist. Nat. Dipt., I, 282.—U. S. (Osten Sacken, Cat., 75, says this is unrecognizable.)
franciscana BIGOT, Annales, 1878, 225.—Cal.
 WILLISTON, Trans. Amer. Ent. Soc., XI, 31.—Wash., Cal.
georgina WIEDEMANN, Dipt. Exot., 235; Auss. Zw., I, 506.—Savannah, Ga.
gilva LINNÉ, Fauna Suec., 1912 (*Asilus*).—Europe.
 DEGEER, Mém. pour. serv. d'Hist. Ins., VI, 241, pl. XIII, f. 15.
 LOEW, Linnæa Ent., II, 548.
 SCHINER, Fauna Austr., I, 139.
 PERRIS, Annales Soc. Ent. France, IV, 212, pl. III, f. 89, 96, parasitic [predatory?] on *Spondylis* and *Crioccephalus* larvæ.
 VAN DER WULP, Tijdschr. v. Ent., XXV, 104, recognized from Quebec.
 WALKER, List, IV, 1156 (*bilineata*).—Martin Falls, Canada. [Will.]
 WILLISTON, Trans. Amer. Ent. Soc., XI, 28, 30 (the latter *bilineata*).
 Col.—O. S.; Montreal—Chagnon.
homopoda BELLARDI, Saggio, App., 20, f. 16.—Mex.
?ichneumon OSTEN SACKEN, Biologia, Dipt., I, 185, pl. III, f. 6.—Guatemala.
 Gen. ref. with a question.
lasipus WIEDEMANN, Auss. Zw., I, 502.—Ky.
marginalis WILLISTON, Biologia, Dipt., I, 318.—Mexico, Atoyac.
melanogaster WIEDEMANN, Dipt. Exot., 236; Auss. Zw., I, 507.—Mex. and Savannah, Ga.
 MACQUART, Dipt. Exot., Suppl., I, 75.—Texas.
numitor OSTEN SACKEN, Biologia, Dipt., I, 185.—Nicaragua.
olbus WALKER, List, II, 375.—Guatemala.
 MACQUART, Dipt. Exot., Suppl., V, 53, pl. II, f. 3.—Honduras.
pubescens WILLISTON, Trans. Amer. Ent. Soc., XI, 32.—Wash., Ore., White Mts., N. H.

- Montreal—Chagnon; Axton, N. Y.—M. & H.
rapax OSTEN SACKEN, West. Dipt., 286.—Webber Lake, Cal.
ruficauda WILLISTON, Trans. Amer. Ent. Soc., XII, 55.—San Domingo.
sadales WALKER, List, II, 378.—N. Y. White Mts., N. H.—O. S.
saffrana FABRICIUS, Syst. Antl., 160.—Carolina.
 WIEDEMANN, Dipt. Exot., 234; Auss. Zw., I, 504.—Ga.
 WILLISTON, Trans. Amer. Ent. Soc., XII, 56.—Fla., N. C.
 Fla., several places—Johnson.
sericea SAY, Jour. Acad. Sci. Phil., II, 74; Compl. Works, I, 12.—U. S.
 WIEDEMANN, Auss. Zw., I, 508.
 N. J.—Smith Cat.; Montreal—Chagnon; White Mts., N. H.—Slosson.
terræ-novæ MACQUART, Dipt. Exot., I, 2, 69.—Newfoundland.
triligata WALKER, Trans. Ent. Soc., v, 281.—Mex.
ventralis WILLISTON, Trans. Amer. Ent. Soc., XII, 55.—Cal.
vivax WILLISTON, Trans. Amer. Ent. Soc., XI, 30.—Wash.
vultur OSTEN SACKEN, West. Dipt., 286.—Coast Range and Webber L., Cal.; Ore.
 WILLISTON, Trans. Amer. Ent. Soc., XI, 29. oc. in Wash., and note.
xanthippe WILLISTON, Trans. Amer. Ent. Soc., XI, 31.—Ore.
 Beulah, N. M.—Skinner.

NEOPHONEUS.

- WILLISTON, Psyche, 1889, 255.
 MACQUART, Dipt. Exot., I, 2, 79, 1839 (*Phoncus*, preoc.).
flavitibia BIGOT, Annales, 1878, 239 (*flavotibius*).—Hayti.

EMPHYSOMERA.

- SCHINER, Verh. Zool.-Bot. Ges., 1866, 665 and 845; Novara, 195, 1868.
 BIGOT, Annales, 1875, 238.
bicolor BIGOT, see *Ommatius pilosulus*.
pilosula BIGOT, see *Ommatius*.

OMMATIUS.

- WIEDEMANN, Auss. Zw., I, 418, 1828.
 BIGOT, Annales, 1875, 238.
fuscipennis BELLARDI, Saggio, App., 23.—Mex.
marginellus FABRICIUS, Spec. Ins., II, 464; Ent. Syst., 384 (*Asilus*); Syst. Antl., 170 (*Dasygogon*).—West Indies.
 ? SAY, Jour. Acad. Sci. Phil., III, 49; Compl. Works, II, 63 (*tibialis*).—Pa.
 WIEDEMANN, Dipt. Exot., 213; Auss. Zw., I, 421, pl. VI, f. 5.—Brazil.
 ? WIEDEMANN, Auss. Zw., I, 422 (*tibialis*).
 WALKER, List, II, 474 (*saccas*).—Jamaica.
 BIGOT, Annales, 1875, 246 (*vitreus*).—Hayti.
 WILLISTON, Trans. Amer. Ent. Soc., XII, 76 (*tibialis*); Trans. Ent. Soc. Lond., 1896, 304, oc., syn., etc.—New England; St. Vincent, W. I.
parvus BIGOT, Annales, 1875, 247.—Mex.
 BELLARDI, Saggio, II, 59 (*pumilus* MACQ.).—Cuantla, Mex. [Will.]
 WILLISTON, Biologia, Dipt., I, 332.—Guerrero and Yucatan, Mex.
peregrinus OSTEN SACKEN, Biologia, Dipt., I, 210.—Panama.
 WILLISTON, Biologia, Dipt., I, 331, oc. in Guerrero, Mex.
pilosulus BIGOT, Annales, 1875, 243 and 244 (*Emphysomera pilosulus* and *bicolor*).
 Mex.
 WILLISTON, Biologia, Dipt., I, 332, syn., etc.—Guerrero and Jalisco, Mex.

- pumilus* MACQUART, Dipt. Exot., Suppl., II, 42, pl. I, f. 10.—Mex.
tibialis SAY, see *marginellus*.
vitreus BIGOT, see *marginellus*.

ATRACTIA.

- MACQUART, Dipt. Exot., I, 2, 151, 1838.
 WILLISTON, Trans. Amer. Ent. Soc., XIII, 290, notes.
marginata OSTEN SACKEN, Biologia, Dipt., I, 212.—Nicaragua.
mikii WILLISTON, see *Atonia*.

PROCTACANTHUS.

- MACQUART, Dipt. Exot., I, 2, 120, 1838.
 WILLISTON, Trans. Amer. Ent. Soc., XII, 73, table of U. S. species.
arno TOWNSEND, Proc. Cal. Acad. Sci., IV, 599.—Lower Cal.
brevipennis WIEDEMANN, Auss. Zw., I, 431 (*Asilus*).—Ky.
 VAN DER WULP, Tijdschr. v. Ent., XXV, 108.
 WILLISTON, Trans. Amer. Ent. Soc., XII, 73.—Ga., Fla.
 N. J.—Smith Cat.; Fla.—Johnson.
craverii BELLARDI, Saggio, II, 50.—Mex.
 WILLISTON, Biologia, Dipt., I, 327.—Guadalajara, Mexico.
exquisitus OSTEN SACKEN, Biologia, Dipt., I, 206, pl. III, f. 12.—N. Sonora, Mex.
fulviventris MACQUART, Dipt. Exot., Suppl., IV, 88.—Fla.
 OSTEN SACKEN, Cat., 235, note.
 Georgiana, Fla.—Johnson.
heros WIEDEMANN, Auss. Zw., I, 427 (*Asilus*).—Ky.
 SCHINER, Verh. Zool.-Bot. Ges., 1866, 682; 1867, 396.—S. C. and Ky.
 WILLISTON, Trans. Amer. Ent. Soc., XII, 74.—Fla.
longus WIEDEMANN, Dipt. Exot., 183; Auss. Zw., I, 426 (*Asilus*).—Ga.
 MACQUART, Hist. Nat. Dipt., I, 307; Dipt. Exot., I, 2, 123.—Rio Janeiro.
 SCHINER, Verh. Zool.-Bot. Ges., 1866, 682; 1867, 396.
micans SCHINER, Verh. Zool.-Bot. Ges., 1867, 397.—N. A.
milbertii MACQUART, Dipt. Exot., I, 2, 124.—N. A.
 RILEY, 2d Mo. Report, 122, fig. 89 (*Asilus missuriensis*).—Mo.; adult preys upon the honey bee.
 ? JÆNNICKE, Neue Exot. Dipt., 57 (*Asilus agrion*).—Ill. [O. S., Cat., from type, with a doubt.]
 RILEY, PACKARD and THOMAS, 1st Rept. U. S. Entomol. Comm., 317; adults prey upon locusts (*missuriensis*).
 WILLISTON, Trans. Amer. Ent. Soc., XII, 74.—Mo., Kans.
 See also Riley, Gen. Index Mo. Reports, 87, 88.
nigriventris MACQUART, Dipt. Exot., I, 2, 124.—Philadelphia, Carolina.
philadelphicus MACQUART, Dipt. Exot., I, 2, 123.—Philadelphia.
 WILLISTON, Trans. Amer. Ent. Soc., XII, 75.—New Engl.
 N. J.—Smith Cat.; Fla.—Johnson.
rufiventris MACQUART, Dipt. Exot., I, 2, 123, pl. X, f. 2.—San Domingo, Honduras.
 Porto Rico—Roeder and Coquillett.
rufus WILLISTON, Trans. Amer. Ent. Soc., XII, 74.—N. C., Mass.
 N. J.—Smith Cat.
virginianus VAN DER WULP, Tijdschr. v. Ent., XXV, 109.—Va.
zamon TOWNSEND, see *Ecritotia amphinome*.

ECCRITOSIA.

SCHINER, Verh. Zool.-Bot. Ges., 1866, 674.

amphinome WALKER, List, II, 387 (*Asilus*).—Honduras.

OSTEN SACKEN, Biologia, Dipt., I, 207.—Presidio, Mex., and Guatemala.

TOWNSEND, Proc. Calif. Acad. Sci., (2), IV, 600 (*Proctacanthus zamon*).
—Lower California.

WILLISTON, Biologia, Dipt., I, 327, syn. and oc.—Jalisco, Mexico.

plinthopyga WIEDEMANN, Dipt. Exot., 184; Auss. Zw., I, 432 (*Asilus*).—Cuba.

BIGOT, in Sagra's Cuba, 791 (*Asilus*).

SCHINER, Verh. Zool.-Bot. Ges., 1867, 399.

ANARMOSTUS.

LOEW, Dipterenfauna Südafrika's, 1860. (This reference is given by Osten Sacken, Williston, and others, and apparently confirmed by Scudder, but I cannot find the genus mentioned in the work specified.)

iopterus WIEDEMANN, Auss. Zw., I, 438 (*Asilus*).—Brazil.

OSTEN SACKEN, Biologia, Dipt., I, 211.—Brit. Honduras.

ERAX.

SCOPOLI, Entom. Carniolica, 359. 1763.

MACQUART, Dipt. Exot., I, 2, 107, 1838.

WILLISTON, Trans. Amer. Ent. Soc., XII, 64, table of U. S. species; Biologia, Dipt., I, 322, table of Central American species.

COQUILLET, Canad. Ent., XXV, 175 (*Efferia*, for a small group). [Williston.]

OSTEN SACKEN, Biologia, Dipt., I, 197, table of Mexican and Cent. American species.

✓ **æstuans** LINNÉ, Syst. Nat., 12th ed., 1007. 5; Amœn. Acad., VI, 413 (*Asilus*).—N. A.

FABRICIUS, Syst. Ent., IV, 379 (*Asilus*); Syst. Antl., 164 (*Dasygogon*).—N. A.

OLIVIER, Encycl. Méth., I, 264.

WIEDEMANN, Dipt. Exot. I, 200; Auss. Zw., I, 467 (*Asilus*).—N. A.

MACQUART, Hist. Nat. Dipt., I, 312 (*Asilus*); Dipt. Exot., I, 2, 115 and 116 (the last as *Asilus rubibarbis*; syn. by Will.).—N. A. to Brazil.

BIGOT, in Sagra's Cuba, 791.

WILLISTON, Trans. Amer. Ent. Soc., XII, 72.—Eastern N. A.; Cuba.

Note.—Williston dates the species from Wiedemann, thinking that Linné had a different species, which may be ignored, there being no possibility of determining it.

N. J.—Smith Cat.

affinis BELLARDI, Saggio, II, 41.—Mex.

albibarbis MACQUART, see *cinerascens*.

ambiguus MACQUART, see *maculatus*.

anomalus BELLARDI, Saggio, II, 32, pl. II, f. 7.—Mex.

WILLISTON, Trans. Amer. Ent. Soc., XII, 68, oc. in Ariz.; Biologia, Dipt., I, 323.—Mexico.

COQUILLET, Canad. Ent., XXV, 175, refers to *Efferia*.

OSTEN SACKEN, Biologia, Dipt., I, 199.—N. Sonora and Cuantla, Mex.

aper WALKER, List, VII, 621.—Mex.

apicalis WIEDEMANN, Dipt. Exot., 191; Auss. Zw., I, 443 (*Asilus*).—N. A.

COMSTOCK, Rept. Dept. of Agric., 1879. 291, note; this species captures many larvæ of *Aletia argillacea* in Ala.

- OSTEN SACKEN, Cat., 234, note 127, on type.
- argyrogaster* MACQUART, Dipt. Exot., Suppl., 1, 84.—Yucatan.
- aridus* WILLISTON, Dipt. of Death Valley Exped., 254.—Death Val., Cal. "Perhaps a var. of *latrunculus*."
- bastardii* MACQUART, Dipt. Exot., 1, 2, 115–118 (*femoratus*, *incisuralis*, *bastardii* and *tibialis*).—Carolina, Pa., San Domingo, Guiana.
- RILEY, 2d Missouri Rept., 124, fig. larval stages.—Mo.
- RILEY, Packard and Thomas, 1st Rept. U. S. Ent. Comm., 303, figs.; larvæ devour locust eggs.—Missouri, etc.
- WILLISTON, Trans. Amer. Ent. Soc., XII, 71, oc. and syn.—Atlantic and Central States.
- Porto Rico—Roeder; Fla.—Johnson. See *macrolabis*.
- bicolor* BELLARDI, Saggio, II, 47.—Mex.
- bimaculatus* BELLARDI, Saggio, II, 45, pl. II, f. 11.—Mex.
- SCHINER, Novara, 182, oc. in Colombia, S. A.
- WILLISTON, Biologia, Dipt., 1, 325.—Mexico.
- candidus* COQUILLETT, Canad. Ent., XXV, 176 (*Efferia*).—Los Angeles Co., Cal.
- carinatus* BELLARDI, Saggio, II, pl. II, f. 9.—Mex.
- ? OSTEN SACKEN, Biologia, Dipt., 1, 205, oc. at Presidio, Mex., with a doubt.
- ? WILLISTON, Biologia, Dipt., 1, 323.—Acaguizotla and Rincon, Mex.
- caudex* WALKER, List, II, 404.—West Indies.
- cinerascens* BELLARDI, Saggio, II, 39, pl. II, f. 10.—Mex.
- MACQUART, Dipt. Exot., 1, 2, 118 (*albibarbis*).—N. A.
- WILLISTON, Trans. Amer. Ent. Soc., XII, 67 (*furax*).—Wash., Cal., Kans., Ariz., and Conn. (Will.)
- OSTEN SACKEN, Biologia, Dipt., 1, 202, oc. and notes.—N. Sonora and Orizaba, Mex.
- HUNTER, S. J. Bull. Ent. Dept. Univ. of Kans., entitled "Alfalfa, Grasshoppers, Bees," p. 37, note on seeing this species "pouncing on young grasshoppers."—Kans.
- TOWNSEND, Proc. Cal. Acad. Sci., IV, 599.—Lower Cal.
- N. J.—Smith Cat.; "On white sands of ocean beach," St. Augustine and Lake Worth, Fla.—Johnson.
- cingulatus* BELLARDI, Saggio, II, 42.—Mex.
- comatus* BELLARDI, Saggio, II, 34.—Mex.
- completus* MACQUART, Dipt. Exot., 1, 2, 117, pl. IX, f. 9.—N. A.
- COQUILLETT, Canad. Ent., XXV, 175, refers to *Efferia*.
- concinatus* WILLISTON, Biologia, Dipt., 1, 323.—Acaguizotla and Rincon, Mexico.
- dascyllus* WALKER, List, II, 401.—Mass.
- OSTEN SACKEN, Cat., 80, note on type; it is no longer recognizable.
- disjunctus* WILLISTON, Biologia, Dipt., 1, 326.—Atoyac, Mexico.
- dolichogaster* WILLISTON, Biologia, Dipt., 1, 326.—Atoyac, Teapa, Mexico.
- eximius* BELLARDI, Saggio, II, 38.—Mex.
- femoratus* MACQUART, see *bastardii*.
- flavofasciatus* WIEDEMANN, Auss. Zw., 1, 470 (*Asilus*).—Brazil.
- WALKER, List, II, 400, oc. in Honduras.
- fortis* WALKER, List, VII, 623.—San Domingo.
- fulvibarbis* MACQUART, Dipt. Exot., Suppl., III, pl. II, f. 13.—Hayti.
- furax* WILLISTON, see *cinerascens*.
- haitensis* MACQUART, Dipt. Exot., Suppl., III, 28, pl. II, f. 10.—Hayti.
- halæsus* WALKER, List, II, 405.—Jamaica. Jamaica—Johnson.

invarius WALKER, Dipt. Saund., 131.—Jamaica.

jubatus WILLISTON, Trans. Amer. Ent. Soc., XII, 66.—N. M.

? *lascivus* WIEDEMANN, Auss. Zw., I, 474.—Brazil.

WALKER, List, II, 400, oc. in Honduras. List, loc. cit. (*Asilus amarynceus*; syn. in VII, 637). Probably not North American.

lateralis MACQUART, see *maculatus*.

latrunculus WILLISTON, Trans. Amer. Ent. Soc., XII, 67.—Ariz., Mont.

leucomus WILLISTON, Trans. Amer. Ent. Soc., XII, 69.—Kans.

loewii BELLARDI, Saggio, App., 21, f. 17.—Mex.

macrolabis WIEDEMANN, Auss. Zw., I, 458.—Ky.

VAN DER WULP, Tijdschr. v. Ent., XXV, 113, oc. in Tenn.

WILLISTON, Trans. Amer. Ent. Soc., XII, 71, doubtful synonym of *bastardii*.

? *macularis* WIEDEMANN, Dipt. Exot., 193; Auss. Zw., I, 447 (*Asilus*).—Brazil.

MACQUART, Dipt. Exot., I, 2, 147.—Brazil.

VAN DER WULP, Tijdschr. v. Ent., XXV, 112; doubtful oc. in N. A.

maculatus MACQUART, Dipt. Exot., I, 2, III, pl. IX, f. 6; 116 (*lateralis*); Suppl., I, 84 (*ambiguus*); Hist. Nat. Dipt., I, 310 (*Asilus interruptus*).—Guiana, Colombia, Guadeloupe; Philadelphia; Texas and Yucatan; Ga. [O. S.]

BELLARDI, Saggio, II, 49 (*Eristicus-villosus*).—Mex. [O. S.]

SCHINER, Verh. Zool.-Bot. Ges., 1867, 392.

OSTEN SACKEN, Cat., 234, note; Biologia, Dipt., I, 200.—N. Sonora, Presidio and Yucatan, Mex.

Fla., several places—Johnson.

marginatus BELLARDI, Saggio, II, 46.—Mex.

niger WIEDEMANN, Dipt. Exot., 196; Auss. Zw., I, 460 (*Asilus*).—Ga.

nigrimystaceus MACQUART, Dipt. Exot., Supl., II, 41.—Guadeloupe.

parvulus BELLARDI, Saggio, II, 35, pl. II, f. 8.—Mex.

pavidus WILLISTON, Biologia, Dipt., I, 326.—Xucumanatlan, Mex.

pernicis COQUILLETT, Canad. Ent., XXV, 175 (*Efferia*).—Los Angeles and San Diego Cos., Cal.

pogonias WIEDEMANN, Dipt. Exot., 198 (specific name changed); Auss. Zw., I, 460 (*Asilus*).—N. A. Ariz.—Wulp.

FABRICIUS, Syst. Antl., 169 (*Asilus barbatus*, preoc.).—N. A.

prolificus OSTEN SACKEN, Biologia, Dipt., I, 202.—N. Sonora, Mex.

WILLISTON, Biologia, Dipt., I, 323.—Venta de Zopilote, Mex.

pumilus WALKER, List, VII, 640.—Vera Cruz, Mex.

quadrinaculatus BELLARDI, II, 44, pl. II, f. 13.—Mex.

WILLISTON, Biologia, Dipt., I, 325.—Atoyac, Mexico.

rapax OSTEN SACKEN, Biologia, Dipt., I, 201.—N. Sonora, Mex.

ravus COQUILLETT, Canad. Ent., XXV, 176 (*Efferia*).—Tex.

rufitibia MACQUART, Dipt. Exot., Suppl. III, 27, pl. II, f. 11.—Hayti, Brazil.

ROEDER, Stett. Ent. Zeit., 1885, 339, oc. in Porto Rico.

WILLISTON, Dipt. St. Vincent, 305, pl. x, f. 79.—St. Vincent, W. I.

sagax WILLISTON, Biologia, Dipt., I, 324.—Santiago Ixcuintla, Mexico.

similis WILLISTON, Trans. Amer. Ent. Soc., XII, 68.—Ariz.

splendens WILLISTON, Biologia, Dipt., I, 325, pl. VI, f. 5.—San Blas, Mexico.

stamineus WILLISTON, Trans. Amer. Ent. Soc., XII, 68.—Mont.

stylatus FABRICIUS, Syst. Ent., 795 (*Asilus*); Ent. Syst., IV, 384 (id.); Syst. Antl., 171 (*Dasygogon*).—West Indies.

WIEDEMANN, Dipt. Exot., 198; Auss. Zw., I, 462 (*Asilus*).—S. A.

SCHINER, Verh. Zool.-Bot. Ges., 1866, 686.

VAN DER WULP, Tijdschr. v. Ent., XVI, 686, oc. in Wis.



tagax WILLISTON, Trans. Amer. Ent. Soc., XII, 65.—Ariz.

tricolor BELLARDI, Saggio, II, 40, pl. II, f. 12.—Mex.

triton OSTEN SACKEN, Biologia, Dipt., I, 200.—Presidio, Mex.

unicolor BELLARDI, Saggio, II, 37.—Mex.

VAN DER WULP, Tijdschr. v. Ent., XXV, 114.—Guanaxuato, Mex.

varipes WILLISTON, Trans. Amer. Ent. Soc., XII, 71.—Ariz., Kans.

Beulah, N. M.—Skinner.

vicinus MACQUART, Dipt. Exot., Suppl. I, 85.—Galveston, Tex.

NEOERISTICUS.

OSTEN SACKEN, Catalogue, 1878, 81, change of name.

LOEW, Linnæa Ent., 396, 1848 (*Eristicus*, preoc.).

nigripes BELLARDI, Saggio, II, 48 (*Erax*, subgenus *Eristicus*).—Mex.

SCHINER, Novara, 182 (*Erax bellardii*; change of name because of preoc. in genus *Erax*).—S. A.

villosus BELLARDI, Saggio, II, 49 (*Erax*, subg. *Eristicus*).—Mex.

MALLOPHORA.

MACQUART, Hist. Nat. Dipt., I, 300, 1834; Dipt. Exot., I, 2, 84, 1838.

WILLISTON, Trans. Amer. Ent. Soc., XII, 57, 1885, table of species.

OSTEN SACKEN, Biologia, Dipt., I, 189, notes.

COQUILLET, Canad. Ent., XXV, 1893, table of species.

æaca WILLISTON, Biologia, Dipt., I, 319.—Atoyac, Mex.

amphinome WALKER, see *Eccritosis*.

OSTEN SACKEN, Cat., 78, notes.

ardens MACQUART, Hist. Nat. Dipt., I, 302; Dipt. Exot., I, 2, 89, pl. VIII, f. 2.—N. A.

bomboides WIEDEMANN, Dipt. Exot., 203; Auss. Zw., I, 476 (*Asilus*).—Ga.

MACQUART, Hist. Nat. Dipt., I, 302; Dipt. Exot., I, 2, 89.—Fla.

WILLISTON, Trans. Amer. Ent. Soc., XII, 57.—Ga., Fla.

St. Augustine, Fla.—Johnson.

? **breviventris** MACQUART, Dipt. Exot., Suppl. IV, 77.—Brazil.

? WILLISTON, Biologia, Dipt., I, 321, doubtfully recognized from Guerrero, Mex.

clausicella MACQUART, Dipt. Exot., Suppl. IV, 79, pl. VII, f. 8.—Va.

WILLISTON, Trans. Amer. Ent. Soc., XII, 59.—Pa.

N. J.—Smith Cat.; Beulah, N. M.—Skinner.

craverii BELLARDI, Saggio, II, 22.—Mex.

WILLISTON, Biologia, Dipt., I, 320.—Atoyac and Teapa, Mex.

fautrix OSTEN SACKEN, Biologia, Dipt., I, 191, pl. III, f. 14.—Presidio, Mex.

WILLISTON, Biologia, Dipt., I, 320, oc. in Tepic, Atoyac and Yucatan, Mex.

fulvianalis MACQUART, Dipt. Exot., Suppl. IV, 78.—Mex.; "perhaps the female of *fulviventris*."

fulviventris MACQUART, Dipt. Exot., Suppl. IV, 77.—Mex., Texas?

OSTEN SACKEN, Biologia, Dipt., I, 191; Macquart's type is a male.

guildiana WILLISTON, Trans. Amer. Ent. Soc., XII, 60.—Kans., Mont., N. C.

"Perhaps a variety of *clausicella*."

freycineti MACQUART, Dipt. Exot., I, 2, 85; Suppl. I, 77.—Brazil and Colombia.

WIEDEMANN, Auss. Zw., I, 475 (*Asilus infernalis* var.).—Brazil.

BELLARDI, Saggio, II, 21 (*infernalis*).—Mex.

OSTEN SACKEN, Biologia, Dipt., I, 189 (*infernalis*).—Panama.

WILLISTON, Biologia, Dipt., I, 319.—Guerrero, Mex.

- laphroides** WIEDEMANN, AUSS. ZW., I, 483 (*Asilus*).—Ky.
 MACQUART, Hist. Nat. Dipt., I, 302 (*minuta*); Dipt. Exot., I, 2, 90, pl. VIII, f. 13 (*heteroptera*).—Both Philadelphia.
 SCHINER, Verh. Zool.-Bot. Ges., 1866, 711; 1867, 387 (the latter *heteroptera* MACQ.).—Ky. and Brazil.
 WILLISTON, Trans. Amer. Ent. Soc., XI, pl. II, f. 11; XII, 59, syn., etc.—Ga. St. Augustine, Fla.—Johnson.
- macquartii** OSTEN SACKEN, see *scopipeda*.
- megachile** COQUILLETT, Canad. Ent., XXV, 118.—Los Angeles Co., Cal.
- nigra** WILLISTON, Trans. Amer. Ent. Soc., XII, 58.—Minn.
 S. Augustine, Fla.—Johnson.
- orcina** WIEDEMANN, AUSS. ZW., I, 477 (*Asilus*).—Savannah, Ga.
 SCHINER, Verh. Zool.-Bot. Ges., 1866, 711.
 WILLISTON, Trans. Amer. Ent. Soc., XII, 58.—D. C., Ariz., Va.
 RILEY, PACKARD, and THOMAS, 2d Rept. U. S. Ent. Comm., quote report by Hubbard on manner of oviposition.
 Fla., several places—Johnson.
- perpusilla** WALKER, Dipt. Saund., 123.—U. S.
 OSTEN SACKEN, Cat., 78, note on type.
- pica** MACQUART, Dipt. Exot., Suppl. IV, 78.—Mex.
 SNOW, Kans. Univ. Quart., IV, 186, 1896, makes this a synonym of *bergii* LYNCH, Asilides Argentinos, 35, which is much more recent.
- pluto** WIEDEMANN, AUSS. ZW., I, 477 (*Asilus*).—Brazil.
 VAN DER WULP, Tijdschr. v. Ent., XXV, 106, notes.—Guatemala and Brazil.
 OSTEN SACKEN, Biologia, Dipt., I, 190.—Guatemala.
- robusta** WIEDEMANN, AUSS. ZW., I, 478 (*Asilus*).—No locality.
 MACQUART, Dipt. Exot., Suppl. I, 78.—Yucatan.
 VAN DER WULP, Tijdschr. v. Ent., XXV, 106.—Brazil.
- scopipeda** RONDANI, Archiv. per la Zool., 1863, 46.—S. A.
 MACQUART, Dipt. Exot., I, 2, 89 (*scopifer* WIED.).—Cuba.
 BIGOT, in Sagra's Cuba, 790 (id.).—Cuba.
 OSTEN SACKEN, Cat., 78 and 233, note 120.
 SNOW, Kans. Univ. Quart., IV, 1896, 186.
 (Arrangement by Williston, in litt.)
- trichostica** WILLISTON, Biologia, Dipt., I, 320.—Atoyac, Mex.
- trapezoidalis** BELLARDI, Saggio, II, 28, pl. III, f. 4 (*Promachus*).—Mex.
 WILLISTON, Biologia, Dipt., I, 320.—Atoyac, Mex.

PROMACHUS.

- LOEW, Linnæa Ent., III, 390, 1848.
 MACQUART, Dipt. Exot., I, 2, 91 (*Trupanca*, preoc.), 1838.
 SCHINER, Fauna Austr., I, 141, 1862.
 WILLISTON, Trans. Amer. Ent. Soc., XII, 60, table of species.
 OSTEN SACKEN, Biologia, Dipt., I, 192, table of Mexican species.
- albifacies** WILLISTON, Trans. Amer. Ent. Soc., XII, 63.—Ariz.
 OSTEN SACKEN, Biologia, Dipt., I, 195.—N. Sonora, Mex.
- anceps** OSTEN SACKEN, Biologia, Dipt., I, 194.—Panama.
 ? BELLARDI, Saggio, II, 24, pl. II, f. 11 (*fuscipennis* MACQ.).—Mex. [O. S.]
 WILLISTON, Biologia, Dipt., I, 321.—Atoyac, Mex.
- bastardii** MACQUART, Dipt. Exot., I, 2, 104 (*Trupanca*).—U. S.
 WALKER, List, II, 392 (*Asilus larvinus*); Dipt. Saund., 123 and 136 (*Tru-*

- panca rubiginis* and *Asilus ultimus*).—Mass.; N. A.; N. A. [Syn. of *ultimus* by Will.; the rest by O. S.]
- SCHINER, Verh. Zool.-Bot. Ges., 1867, 389 (*philadelphicus*).—Pa. [O. S.]
- WILLISTON, Trans. Amer. Ent. Soc., XII, 63.—New England, Middle States. N. J.—Smith Cat.
- cinctus** BELLARDI, Saggio, II, 25, pl. II, f. 2.—Mex.
- OSTEN SACKEN, Biologia, Dipt., I, 193.—Guatemala, Nicaragua.
- WILLISTON, Biologia, Dipt., I, 321.—San Lorenzo, Mex.
- fitchii** OSTEN SACKEN, Cat., note, 121, p. 234, change of name.
- FITCH, Country Gentleman, XXIV, 63; 3d N. Y. Report, 251, pl. IV, f. 7 (*Trupanea apivora*, preoc). Adult devours bees in Nebraska.
- RILEY, 1st Mo. Report, 168, same habit in Mo. (id.).
- WILLISTON, Trans. Amer. Ent. Soc., XII, 61.—Kans., Conn. St. Augustine, Fla.—Johnson.
- forfex** OSTEN SACKEN, Biologia, Dipt., I, 194.—Costa Rica.
- BELLARDI, Saggio, II, 27, pl. II, f. 3 (*quadratus*, preoc).—Mex. [O. S. and Will.]
- WILLISTON, Biologia, Dipt., I, 321.—Atoyac, Mex.
- [**fuscipennis** MACQUART, not North American. See Osten Sacken, Biologia, Dipt., I, 194.]
- magnus** BELLARDI, Saggio, II, 26.—Mex.
- nobilis** OSTEN SACKEN, Biologia, Dipt., I, 196.—Costa Rica.
- princeps** WILLISTON, Trans. Amer. Ent. Soc., XII, 62.—Wash.
- pulchellus** BELLARDI, Saggio, II, 29, pl. II, f. 5.—Mex.
- quadratus** WIEDEMANN, Dipt. Exot., 201; Auss. Zw., I, 485 (*Asilus*).—Ga.
- OSTEN SACKEN, Biologia, Dipt., I, 192, notes.
- rufipes** FABRICIUS, Syst. Ent., 794 (*Asilus*); Syst. Antl., 169 (*Dasygogon*).—America.
- WIEDEMANN, Dipt. Exot., 203; Auss. Zw., I, 487 (*Asilus*).—America.
- SCHINER, Verh. Zool.-Bot. Ges., XVI, 688, gen. ref.
- VAN DER WULP, Tijdschr. v. Ent., XXV, 107, note.
- WILLISTON, Trans. Amer. Ent. Soc., XII, 107.—Ga., Fla.
- trapezoidalis** BELLARDI, see *Mallophora*.
- truquii** BELLARDI, Saggio, II, 30, pl. II, f. 6.—Mex.
- WILLISTON, Biologia, Dipt., I, 322.—Amula and Atoyac, Mex.
- ultimus** WALKER, Dipt. Saund., 136 (*Asilus*).—U. S.
- OSTEN SACKEN, Cat., 79, note; perhaps same as *bastardii*.
- vertebratus** SAY, Jour. Acad. Sci. Phil., III, 47; Compl. Works, II, 62 (*Asilus*).—Mo.
- WIEDEMANN, Auss. Zw., I, 485 (id.).
- MACQUART, Dipt. Exot., I, 2, 103 (*Trupanea*).—No locality.
- SCHINER, Verh. Zool.-Bot. Ges., XVI, 688, gen. ref.
- WILLISTON, Trans. Amer. Ent. Soc., XII, 62.—Wash. Brookings, S. D.—J. M. A.

STENOPROSOPUS.

- MACQUART, Dipt. Exot., I, 2, 130, 1838 (*Senoprosopis*).
- arizonensis** WILLISTON, Kans. Univ. Quart., II, 76.—Ariz.

EUTOLMUS.

- LOEW, Linnæa Ent., IV, 150, 1849.

This genus is mentioned as North American by Williston, Manual, p. 50, but no species have been definitely referred to it.

MACHIMUS.

LOEW, Linnæa Ent., iv, 1, 1849.

avidus VAN DER WULF, Tijdschr. v. Ent., sec. XII, 82.—Wis.

HELIGMONEURA.

BIGOT, Thoms. Archiv. Entom., II, 1858.

LOEW, Linnæa Ent., iv, 58, 1849 (*Mochtherus*, preoc.); syn. acknowledged in Dipteren-fauna Südafrika's, 1860.

OSTEN SACKEN, Cat., 82, changes Loew's name to *Neomochtherus*, 1878.

WILLISTON, Psyche, 1889, 255, syn.

dolichomerus WILLISTON, Biologia, Dipt., 1, 329.—Guerrero, Mex.; may be var. of *melanocerus*.

gracilis WIEDEMANN, Auss. Zw., 1, 445 (*Asilus*).—Savannah, Ga.

OSTEN SACKEN, Cat., 235, note on type, etc. (*Neomochtherus*).

fuliginosa BELLARDI, Saggio, II, 52 (*Mochtherus*).—Mex.

melanocerus WILLISTON, Biologia, Dipt., 1, 329.—Guerrero, Mex.

plebeia OSTEN SACKEN, see *truquii*.

truquii BELLARDI, Saggio, II, 52 (*Mochtherus*).—Mex.

VAN DER WULF, Tijdschr. v. Ent., XXV, 116 (id.), note.—Guanaxuato, Mex.

BELLARDI, Saggio, II, 55 (*Philonicus teniatus*).—Mex.

OSTEN SACKEN, Biologia, Dipt., 1, 209 (*Neomochtherus plebeius*).—N. Sonora, Mex.

WILLISTON, Biologia, Dipt., 1, 328.—Mexico, various places; synonymy.

xanthocerus WILLISTON, Biologia, Dipt., 1, 329.—Guerrero, Mex.

STILPNOGASTER.

LOEW, Linnæa Ent., iv, 82, 1849.

anceps VAN DER WULF, Tijdschr. v. Ent., XII, 84.—Wis.

NEOITAMUS.

OSTEN SACKEN, Cat., 82, 1878, change of name.

LOEW, Linnæa Ent., iv, 84, 1849 (*Itamus*, preoc.).

æneobarba "LOEW, in litt.—Northern and Middle States"—O. S. Cat.

affinis WILLISTON, Kans. Univ. Quart., II, 73.—Wash.

capillatus WILLISTON, Biologia, Dipt., 1, 330.—Guerrero, Mexico.

distinctus WILLISTON, Kans. Univ. Quart., II, 73.—N. H., Conn.

N. J.—Smith Cat.; White Mts., N. H.—Slosson; Montreal—Chagnon.

nigrocaudatus WILLISTON, Biologia, Dipt., 1, 329.—Guerrero, Mexico.

EPITRIPTUS.

LOEW, Linnæa Ent., iv, 108, 1849.

? **albispinosus** BELLARDI, Saggio, II, 54.—Mex. Query by Bell.

niveibarba BELLARDI, Saggio, II, 53.—Mex.

TOLMERUS.

LOEW, Linnæa Ent., iv, 82, 1849.

alterus WILLISTON, Biologia, Dipt., 1, 330.—Guerrero, Mexico.

annulipes MACQUART, Dipt. Exot., 1, 2, 149 (*Asilus*).—Carolina.

Atl. St. and Canada—O. S.; N. J.—Smith Cat.

callidus WILLISTON, Kans. Univ. Quart., II, 75.—Wash., Ore.

Montreal—Chagnon; Beulah, N. M.—Skinner.

notatus WIEDEMANN, Auss. Zw., I, 451 (*Asilus*).—Ga.

WILLISTON, Kans. Univ. Quart., II, 74.—N. C., Mich., S. D., New England.

N. J.—Smith Cat.; Montreal—Chagnon; White Mts., N. H.—Slosson.

PHILODICUS.

LOEW, Linnæa Ent., IV, 144, 1848; Dipterenfauna Südafrika's, 139, 1860.
tæniatus BELLARDI, see *Hcligmoncura truquii*.

tuxpanganus BELLARDI, Saggio, App., 22.—Tuxpango, Mex.

ASILUS.

LINNÉ, Syst. Naturæ, 605 (11th ed., 1760); Fauna Suecica, 469, 1761.

LATREILLE, Hist. Nat. Crust. et Ins., III, 433, 1802.

FABRICIUS, Sys. Antl., 153, 1805.

MEIGEN, Syst. Besch., II, 230, 1820.

MACQUART, Hist. Nat. Dipt., I, 302, 1834.

SCHINER, Fauna Austr., I, 142, 1862.

Note.—Some of the species included here doubtless belong to other genera, perhaps quite remote from *Asilus*.

alethes WALKER, List, II, 454.—N. Y.

angustifrons WILLISTON, Kans. Univ. Quart., II, 71.—Wash.

annulatus WILLISTON, Kans. Univ. Quart., II, 70.—N. H., Mass., Conn., S. D., Kans.

N. J.—Smith Cat.; Montreal—Chagnon; White Mts., N. H.—Mrs. Slosson.

anonymus WILLISTON, Biologia, Dipt., I, 330.—Guerrero, Mex.

antimachus WALKER, List, II, 454.—Trenton Falls, N. Y.

apicalis BELLARDI, Saggio, II, 57.—Mex. (Preoccupied—O. S.)

astutus WILLISTON, Kans. Univ. Quart., II, 70.—Cal.

atripes FABRICIUS, Syst. Antl., 170 (*Dasygogon*).—West Indies.

WIEDEMANN, Dipt. Exot., 195; Auss. Zw., I, 155.—West Indies.

auratus JOHNSON, Proc. Acad. Nat. Sci., 1895, 305.—Palatka and St. Augustine, Fla.

chrysauges OSTEN SACKEN, Biologia, Dipt., I, 208.—Guatemala.

femoralis MACQUART, Dipt. Exot., Suppl. II, 45.—Philadelphia.

flavipes WILLISTON, Kans. Univ. Quart., II, 72.—Pa.; the one mentioned from Conn. is different. N. J.—Smith Cat.; Montreal—Chagnon.

inauratus WALKER, Trans. Ent. Soc., V, 283.—Mex.

infuscatus BELLARDI, Saggio, II, 56, pl. II, f. 15.—Mex.

lecythus WALKER, List, II, 451.—Nova Scotia.

lestes WILLISTON, Biologia, Dipt., I, 331.—Guerrero, Mexico.

? **longicella** MACQUART, Dipt. Exot., Suppl. IV, 95, pl. IX, f. 5.—Locality N. A., with a doubt.

megacephalus BELLARDI, Saggio, II, 58, pl. II, f. 14.—Mex.

mexicanus MACQUART, Dipt. Exot., Suppl. I, 94.—Mex.

midas BRAUER, Sitzungsbericht der Kaiserl. Akad. der Wissenschaften, XCI, 1885, 387, pl. II, f. 1.—Mex.

WILLISTON, Kans. Univ. Quart., II, 69, brief quotation.—N. M.

OSTEN SACKEN, Biologia, Dipt., I, 209.—Durango and Cuernavaca, Mex.

✓ **novæ scotiæ** MACQUART, Dipt. Exot., Suppl. II, 46.—Nova Scotia.

WILLISTON, Kans. Univ. Quart., II, 68.—Conn.

N. J.—Smith Cat.; White Mts., N. H.—Slosson; Montreal—Chagnon; Fla.—Johnson.

orphne WALKER, List, II, 456.—N. Y.

paropus WALKER, List, II, 455.—N. Y.

perrumpens WALKER, Trans. Ent. Soc., v, 283.—Mex.

sadyates WALKER, List, II, 453.—Ohio.

sericeus SAY, Jour. Acad. Sci. Phil., III, 48; Compl. Works, II, 63.—Pa.

WIEDEMANN, Auss. Zw., I, 429.

WALKER, List, II, 410 (*herminius*).—Mass. [O. S.]

WILLISTON, Trans. Amer. Ent. Soc., XI, pl. II, f. 10, no desc.; Kans. Univ. Quart., II, 68.—New England, Ind., Kans.

RILEY, 2d Mo. Report, 123, gives figure, and notes that Harris (Insects Injurious to Vegetation, 605) has reared the species from larvæ feeding on rhubarb roots.

N. J.—Smith Cat.

tenebrosus WILLISTON, Biologia, Dipt., I, 328.—Omiteme, Mexico.

tibialis MACQUART, Hist. Nat. Dipt., I, 313.—Philadelphia.

truquii BELLARDI, see *Helgimoncura*.

vittatus OLIVIER, Encycl. Méthodique, I, 263.—San Domingo.

RHADIURGUS.

LOEW, Linnæa Ent., IV, 1849.

leucopogon WILLISTON, Kans. Univ. Quart., II, 75.—S. D., Nebr.

LOPHONOTUS.

MACQUART, Dipt. Exot., I, 2, 125, 1838.

LOEW, Linnæa Ent., III, 423, 1848; Dipterenfauna Südafrika's, 152, 1860.

humilis BELLARDI, Saggio, II, 51.—Mex.

DOLICHOPODIDÆ.

LOEW, Mon. N. A. Dipt., vol. II, 1864 (in Smithsonian Miscellaneous Collections, No. 171), is a monograph which is still useful, although it must be studied in connection with the later works. The earlier descriptions are quoted and discussed in this monograph.

BIGOT, Annales, 1890, 261, article with table of genera of the world.

Note.—The arrangement in subfamilies, much of the synonymy, and some notes, are the result of my own study of the family, which has been a favorite with me for fourteen years.

AGONOSOMINÆ.

PSILOPODINUS.

BIGOT, Annales Soc. Ent. France, 1890, 269.

? BIGOT, Annales Soc. ent. France, 1859, 215 (*Oariostylus*, *Megistostylus*, *Mesoblepharius*, *Condylostylus*, *Eurostomcerus*, *Dasypsilopus*, *Heteropsilopus*, *Acdipsilopus*).

LOEW, Mon. N. A. Dipt., II, 229 (*Psilopus*), 1864.

? BIGOT, Annales Soc. ent. France, 1890, 261–269 (*Spathipsilopus*, *Eudasybus*, *Amblypsilopus*, *Tylochatus*, *Oariopherus*).

ALDRICH, Kans. Univ. Quart., II, 47, 1895 (*Psilopus* in restricted sense); Biologia Centrali-Americana, Dipt., I, 350, 1901, table of American species (id.); Canad. Ent., 1904, 246, nomenclature.

Note.—As the species up to 1902 have all been referred to under the name *Psilopus*, it will be unnecessary to repeat it in each reference.

- albicoxa* WALKER, List, III, 651.—U. S.
- argentatus* ALDRICH, Biologia, Dipt., I, 361.—Guerrero and Tabasco, Mex.
- atricauda* ALDRICH, Biologia, Dipt., I, 357.—Tabasco and Vera Cruz, Mex.
- atrolamellatus* ALDRICH, Biologia, Dipt., I, 359.—Teapa, Mex.
- barbatus* ALDRICH, Biologia, Dipt., I, 358.—Guerrero, Mex.; Rio Janeiro.
- basilaris* WIEDEMANN, Auss. Zw., II, 215.—Brazil.
- ALDRICH, Biologia, Dipt., I, 362.—Teapa, Mex.
- bellulus* ALDRICH, Dipt. St. Vincent, 343; Biologia, Dipt., I, 355.—St. Vincent, W. I.; Mexico, several places.
- brevisetia* COQUILLETT, Jour. N. Y. Ent. Soc., x, 140.—San Rafael, Vera Cruz, Mex.
- calcaratus* LOEW, Neue Beitr., VIII, 93; Mon. N. A. Dipt., II, 272.—Carolina.
- caudatus* WIEDEMANN, Auss. Zw., II, 224.—Ga.
- LOEW, Neue Beitr., VIII, 93; Mon. N. A. Dipt., II, 271 (both *caudatulus*).—Mo., III.
- ALDRICH, Biologia, Dipt., I, 360, oc. in Mexico, several places, and syn. St. Vincent and Grenada, W. I.—Aldrich.
- U. S. generally, except Rocky Mts. and west of them.
- chrysoprasius* WALKER, List, III, 646 (*chrysoprasi*).—W. I.
- LOEW, Neue Beitr., VIII, 90; Mon. N. A. Dipt., II, 265.—Mex.
- SCHINER, Novara, 213, oc. in Brazil.
- Porto Rico—Roeder; Jamaica—Johnson; St. Vincent and Grenada—Aldrich; Charlotte Harbor, Fla.—Johnson.
- ciliatus* LOEW, see *mundus*.
- ciliipes* ALDRICH, Biologia, Dipt., I, 355, pl. VI, f. 22.—Acapulco, N. Yucatan, etc., Mex.
- clavipes* ALDRICH, Biologia, Dipt., I, 363.—Guerrero, Mex.
- clunalis* COQUILLETT, Jour. N. Y. Ent. Soc., x, 141.—San Rafael, Vera Cruz, Mex.
- comatus* LOEW, Neue Beitr., VIII, 89; Mon. N. A. Dipt., II, 262.—Middle States.
- ALDRICH, Biologia, Dipt., I, 361, oc. in Mexico, several places.
- ? SCHINER, Novara, 213.—S. A. Probably not the same.
- Volusia, Fla.—Johnson. See *longicornis*.
- coxalis* ALDRICH, Biologia, Dipt., I, 357.—Misantla, Mex.
- delicatus* WALKER, see *Agonosoma*.
- depressus* ALDRICH, Biologia, Dipt., I, 359.—Tabasco, Mex.
- diffusus* WIEDEMANN, Auss. Zw., II, 221.—Brazil.
- LOEW, Mon. N. A. Dipt., II, 235, the Savannah label has been changed on the type to Brazil; redesc. from Brazil.
- ALDRICH, Biologia, Dipt., I, 355, oc. in Tabasco and Vera Cruz, Mex.
- Porto Rico—Roeder.
- dimidiatus* LOEW, see *Agonosoma*.
- femoratus* SAY, Jour. Acad. Sci. Phil., III, 86, and VI, 168; Compl. Works, II, 76 and 361—the latter reference, however, is a mistake, and refers to another species.—Pa. (Near *caudatus*, but cannot be determined with certainty—J. M. A.)
- flavicoxa* ALDRICH, Biologia, Dipt., I, 363.—Vera Cruz and Tabasco, Mex.
- forcipatus* ALDRICH, Biologia, Dipt., I, 362.—Teapa, Mex.
- genualis* ALDRICH, Biologia, Dipt., I, 358.—Guerrero, Mex.
- hæreticus* WALKER, Trans. Ent. Soc., v, 286.—Mex. (Unrecognizable—J. M. A.)
- hirtipes* ALDRICH, Biologia, Dipt., I, 361.—Guerrero, Mex.
- hirtulus* BIGOT, Bull. Ent. Soc. France, 1888, XXIX; Annales, 1890, 286.—Hayti. (Near *caudatus*; cannot be determined with certainty—J. M. A.)

- incisuralis** MACQUART, Dipt. Exot., Suppl., i, 120, pl. xx, f. 6.—Yucatan, Mex.
 LOEW, Mon. N. A. Dipt., ii, 241, notes; not recognized. (Near *flavicoxa*, but cannot be identified with certainty—J. M. A.)
- inermis** LOEW, Neue Beitr., viii, 93; Mon. N. A. Dipt., ii, 272.—Pa.
 N. J.—Smith Cat.
- inornatus** ALDRICH, Biologia, Dipt., i, 356.—Guerrero and Morelos, Mex.
- insularis** ALDRICH, Dipt. St. Vincent, 344.—St. Vincent, W. I. Grenada—Ald.
- interceptus** ALDRICH, Biologia, Dipt., i, 363.—Teapa, Mex.
- jucundus** LOEW, Neue Beitr., viii, 87; Mon. N. A. Dipt., ii, 258.—Cuba.
 MACQUART, Dipt. Exot., ii, 2, 119, pl. xxi, f. 1 (*sipho* WIED.).—Pa., Cuba, Guiana and Brazil. [Lw.]
 Porto Rico—Roeder; Jamaica—Johnson; Grenada—Aldrich.
- lepidus** WALKER, Dipt. Saund., 207.—Mex. (Unrecognizable.)
- longicornis** FABRICIUS, Syst. Ent., 783; Ent. Syst., iv, 341 (both *Musca*); Syst. Antl., 269 (*Dolichopus*).—W. I.
 WIEDEMANN, Auss. Zw., ii, 220.—W. I.
 LOEW, Mon. N. A. Dipt., ii, 231, 289, 294, notes and orig. desc.
 COQUILLET, Proc. U. S. N. M., xxii, 252, oc. in Porto Rico. (Probably refers to *comatus*, which may be the original species.)
- longiseta** COQUILLET, Jour. N. Y. Ent. Soc., x, 141.—San Rafael, Vera Cruz, Mex.
- macula** WIEDEMANN, Auss. Zw., ii, 219.—Caribee Ids.
 LOEW, Mon. N. A. Dipt., ii, 292, quotes orig. desc.
 (Near *sipho*, but cannot be recognized with certainty.)
- melampus** LOEW, Berl. Ent. Zeitsch., vi, 215; Mon. N. A. Dipt., ii, 253.—Mexico.
 SCHINER, Novara, 212.—S. A.
 ? WALKER, List, iii, 649 (*inficitus*).—Mex. [J. M. A.]
 ALDRICH, Biologia, Dipt., i, 354, oc. in Mexico, several places.
 Beulah, N. M.—Skinner (*melanopus*).
- mundus** WIEDEMANN, Auss. Zw., ii, 227.—Savannah, Ga.
 LOEW, Neue Beitr., viii, 80; Mon. N. A. Dipt., ii, 240, 260 (*ciliatus*, but with probable synonymy).—Fla.
 CASTLE and LAURENT, Ent. News., vii, 303, oc. at Enterprise, Fla. (*ciliatus*).
 Fla., several places—Johnson.
- nigrofemoratus** WALKER, List, iii, 650.—Nova Scotia. (Unrecognizable.)
- nobilissimus** ALDRICH, Biologia, Dipt., i, 360, pl. vi, f. 23.—Guerrero, Morelos, etc., Mex.
- patibulatus** SAY, Jour. Acad. Sci. Phil., iii, 87 and vi, 168; Compl. Works, ii, 76 and 361 (*Dolichopus*).—E. Fla.; the second reference mentions the species as occurring in Mexico, but this is probably *melampus*.
 WALKER, List, iii, 648 (*amatus*).—Trenton Falls, N. Y.
 LOEW, Neue Beitr., viii, 85; Mon. N. A. Dipt., ii, 251.—"Chicago, Nebr., etc."
 N. J.—Smith Cat.; Montreal—Chagnon.
- pennifer** ALDRICH, Biologia, Dipt., i, 363.—Teapa, Mex.
- peractus** WALKER, Trans. Ent. Soc., v, 286.—Mex. (Unrecognizable.)
- permodicus** WALKER, Trans. Ent. Soc., v, 287.—Mex. (Unrecognizable.)
- pilosus** LOEW, Neue Beitr., viii, 86; Mon. N. A. Dipt., ii, 256.—Cuba.
 ROEDER, Stett. Ent. Zeit., 1885, 340, oc. in Porto Rico, and notes.
- portoricensis** MACQUART, Hist. Nat. Dipt., i, 450; Dipt. Exot., ii, 2, 121; Suppl. i, 120, pl. xi, f. 17.—Porto Rico.
- præstans** ALDRICH, Biologia, Dipt., i, 355.—Teapa, Mex.

- purpuratus* ALDRICH, *Biologia*, Dipt., I, 358.—Morelos and Guerrero, Mex.
- purpureus* ALDRICH, *Biologia*, Dipt., I, 362.—Vera Cruz, Guerrero and Tabasco, Mex.
- radians* MACQUART, *Hist. Nat. Dipt.*, I, 450; *Dipt. Exot.*, II, 2, 121.—N. A. (Near *comatus*, but cannot be recognized.)
- LOEW, *Mon. N. A. Dipt.*, II, 240, 298, not recognized.
- scaber* LOEW, *Neue Beitr.*, VIII, 85; *Mon. N. A. Dipt.*, II, 250.—Pa.
- N. J.—Smith Cat.
- scobinator* LOEW, *Neue Beitr.*, VIII, 91; *Mon. N. A. Dipt.*, II, 268.—N. Y., Ill.
- N. J.—Smith Cat.; Axton, N. Y.—M. & H.
- similis* ALDRICH, *Biologia*, Dipt., I, 359.—Guerrero, Yucatan, etc., Mex.; Brazil.
- sipho* SAY, *Jour. Acad. Sci. Phil.*, III, 85; *Compl. Works*, II, 75 (*Dolichopus*). U. S.
- WIEDEMANN, *Auss. Zw.*, II, 218.—Pa.
- WALKER, *List*, III, 646 (*gemmifer*).—Trenton Falls, N. Y. [Lw.]
- LOEW, *Neue Beitr.*, VIII, 83; *Mon. N. A. Dipt.*, II, 248.—Pa., Ga., Va., Ill.
- Common throughout the eastern and middle part of the United States; Montreal—Chagnon.
- Note*.—There is a reference to *sipho* by Macquart, in *Dipt. Exot.*, II, 2, 179, with fig. 1, pl. XXI; Loew, *Mon.*, 241, says it refers to *jucundus*, while Schiner, *Novara*, 210, says it means *dur* WIED.
- solidus* WALKER, *Trans. Ent. Soc.*, v, 286.—Mex. (Unrecognizable.)
- suavium* WALKER, *List*, III, 648.—Jamaica. Porto Rico—Roeder.
- tibialis* WIEDEMANN, *Auss. Zw.*, II, 222.—Antigua.
- tonsus* ALDRICH, *Biologia*, Dipt., I, 364.—Frontera, Mex.
- triseriatus* ALDRICH, *Biologia*, Dipt., I, 356.—Cuernavaca and Teapa, Mex.
- ungulivena* WALKER, *Trans. Ent. Soc.*, IV, 249.—U. S. (Unrecognizable.)
- virgo* WIEDEMANN, *Auss. Zw.*, II, 224.—N. Y.
- SCHINER, *Novara*, 215. oc. in S. A.
- LOEW, *Mon. N. A. Dipt.*, II, 240, 295.

AGONOSOMA.

- GUÉRIN-MÉNEVILLE, *Voyage . . . sur la Corvette. Zoologie*, Tome II, partie 2me, p. 293. Paris, 1838 (title-page gives date 1830). On the plates the genus is called *Chrysosoma*.
- FALLÉN, *Dolichopodes*, 23, 1823 (*Leptopus*, preoc.).
- MEIGEN, *Syst. Besch.*, IV, 35, 1824 (*Psilopus*, preoc.).
- ZELLER, *Isis* 1842, 831, changes *Psilopus* to *Sciapus*.
- ? BIGOT, *Annales Soc. ent. France*, 1859, 215 (*Margaritostylus*, in part).
- RONDANI, *Dipt. Ital. Prodromus*, IV, 11, 1861, changes *Psilopus* to *Psilopodius*.
- SCHINER, *Fauna Austr.*, I, 180, 1862 (*Psilopus* MEIG.).
- LOEW, *Mon. N. A. Dipt.*, II, 229 (id.), 1864.
- ALDRICH, *Kans. Univ. Quart.*, II, 47, 1893 (*Gnamptopsilopus*); *Biologia*, Dipt., I, 364, 1901, table of species (id.); *Canad. Ent.*, 1904, 246, nomenclature.
- COQUILLET, *Jour. N. Y. Ent. Soc.*, X, 140, 1902, syn. of *Gnamptopsilopus*.
- BEZZI, *Zeitsch. f. Syst. Hym. u. Dipterologie*, 1902, 191, adopts *Sciapus*.
- bicolor* LOEW, see *unifasciatus*.
- castum* LOEW, *Cent.*, VI, 84 (*Psilopus*).—Cuba.
- ciliipennis* ALDRICH, *Biologia*, Dipt., I, 366, pl. VI, f. 24 (*Gnamptopsilopus*).—Omitlteme, Mex.

- delicatum** WALKER, List, III, 645 (*Psilopus*).—N. Y. (Unrecognizable.)
- dimidiatum** LOEW, Berl. Ent. Zeitsch., VI, 216; Mon. N. A. Dipt., II, 246 (both *Psilopus*).—Mex.
- ALDRICH, Biologia, Dipt., I, 365 (*Gnamptopsilopus*).—Morelos, Mex.
- Porto Rico, Roeder; South Amer.—Schiner, Novara, 212.
- dorsale** LOEW, Cent., VI, 85 (*Psilopus*).—Cuba.
- filipes** LOEW, Neue Beitr., VIII, 99; Mon. N. A. Dipt., II, 286, pl. VII, f. 44 (*Psilopus*).—Middle States.
- flavicornis** ALDRICH, Dipt. St. Vincent, 342 (*Gnamptopsilopus*).—St. Vincent, W. I.; also from Grenada.
- flavidum** ALDRICH, Dipt. St. Vincent, 341, pl. XII, f. 109 (*Gnamptopsilopus*).—St. Vincent, W. I.; also from Grenada.
- infumatum** ALDRICH, Biologia, Dipt., I, 365 (*Gnamptopsilopus*).—Guerrero, Mex.
- mexicanum** ALDRICH, Biologia, Dipt., I, 365 (*Gnamptopsilopus*).—Vera Cruz and Tabasco, Mex.
- pallens** WIEDEMANN, AUSS. ZW., II, 219 (*Psilopus*).—N. Y.
- LOEW, Neue Beitr., V, 4 (*Psilopus albonotatus*, from Isle to Rhodes); VIII, 97 (*Psilopus pallens*); Mon. N. A. Dipt., II, 275 (id.).—N. Y.
- OSTEN SACKEN, Cat., 243, oc. and syn.—Spain, N. Y., R. I.
- N. J.—Smith Cat.
- psittacinum** LOEW, Neue Beitr., VIII, 96; Mon. N. A. Dipt., II, 281 (*Psilopus*).—Fla.
- N. J.—Smith Cat.; Porto Rico—Roeder; St. Augustine and L. Worth, Fla.—Johnson.
- scintillans** LOEW, Neue Beitr., VIII, 94; Mon. N. A. Dipt., II, 273 (both *Psilopus*).—Middle States. N. J.—Smith Cat.
- tener** LOEW, Cent., II, 71; Mon. N. A. Dipt., II, 284 (both *Psilopus*).—Pa.
- N. J.—Smith Cat.
- unifasciatum** SAY, Jour. Acad. Sci. Phil., III, 85; Compl. Works, II, 75 (*Dolichopus*).—Pa.
- WIEDEMANN, AUSS. ZW., II, 219 (*Psilopus sayi*).
- LOEW, Neue Beitr., VIII, 96; Mon. N. A. Dipt., II, 280 (both *Psilopus bicolor*).—Middle States. Loew also quotes the earlier descriptions, pp. 332, 289, 293.
- GIGLIO-TOS, Annales Soc. Ent. France, 1895, 359, suspects that *Psilopus leptogaster* THOMPSON, Eugen. Resa, 510, is the same as *bicolor*.
- variegatum** LOEW, Neue Beitr., VIII, 95; Mon. N. A. Dipt., II, 278 (both *Psilopus*).—Fla. Cuba. N. J.—Smith Cat.; Fla., several places—Johnson.

MESORHAGA.

SCHINER, Novara, 217, 1868.

ALDRICH, Kans. Univ. Quart., II, 48, 1893 (*Aptorthus*); Ent. News, XI, 531, syn.

albiciliata ALDRICH, Kans. Univ. Quart., II, 48 (*Aptorthus*).—Westville, N. J.; Mich. N. J.—Smith Cat.

borealis ALDRICH, Kans. Univ. Quart., II, 49 (*Aptorthus*).—St. Paul, Minn.

nigripes ALDRICH, Kans. Univ. Quart., II, 49 (*Aptorthus*).—Cal.

townsendii ALDRICH, Kans. Univ. Quart., II, 50 (*Aptorthus*).—Aztec., Ariz.; Atlantic City, N. J.

LEPTORHETHUM.

ALDRICH, Kans. Univ. Quart., II, 50, 1893.

angustatum ALDRICH, Kans. Univ. Quart., II, 50; Dipt. St. Vincent, 345, pl. XII, f. 108.—St. Vincent, W. I.

DIAPHORINÆ.

DIAPHORUS.

- MEIGEN, Syst. Besch., iv, 32, 1824.
 SCHINER, Fauna Austr., i, 186, 1864.
 LOEW, Wien. Ent. Monatsch., i, 37, 1857 (*Lyroneurus*, in part); Mon. N. A. Dipt., ii, 156 and 169, 1864 (*Diaphorus* and *Lyroneurus*).
 ALDRICH, Dipt. St. Vincent, 321, note, 1896; Kans. Univ. Sci. Bull., i, 1902, 85, table of species.
- amœnus* ALDRICH, Kans. Univ. Sci. Bull., i, 86.—Grenada, W. I.
approximatus ALDRICH, see *spectabilis*.
cærulescens LOEW, Wien. Ent. Monatsch., i, 39; Neue Beitr., viii, 60; Mon. N. A. Dipt., ii, 170 (all *Lyroneurus*).—Mex.
contiguus ALDRICH, Dipt. St. Vincent, 323.—St. Vincent, W. I.; also in Grenada.
deceptivus ALDRICH, Biologia, Dipt., i, 346.—Guerrero and Vera Cruz, Mex.
dimidiatus ALDRICH, Dipt. St. Vincent, 322.—St. Vincent, W. I. Also in Grenada.
dubius ALDRICH, Dipt. St. Vincent, 324.—St. Vincent, W. I.; also in Grenada.
flavipes ALDRICH, Dipt. St. Vincent, 323.—St. Vincent, W. I. Also occurs in Grenada.
interruptus LOEW, see *Asyndetus*.
lamellatus LOEW, Mon. N. A. Dipt., ii, 165.—Middle States.
leucostoma LOEW, Neue Beitr., viii, 58; Mon. N. A. Dipt., ii, 166.—D. C., Md.
 HOWARD, Proc. Wash. Acad. Sci., ii, 561, reared a specimen from human excrement. N. J.—Smith Cat.; Charlotte Harbor, Fla.—Johnson.
mundus LOEW, Neue Beitr., viii, 57; Mon. N. A. Dipt., ii, 161.—Pa.
 N. J.—Smith Cat.; Drayton Id. and Charlotte Harbor, Fla.—Johnson.
nigrescens ALDRICH, Biologia, Dipt., i, 346.—Guerrero, Mex.
opacus LOEW, Neue Beitr., viii, 56; Mon. N. A. Dipt., ii, 160.—N. Y.
 ALDRICH, Dipt. St. Vincent, 320; Kans. Univ. Sci. Bull., i, 86.—St. Vincent and Grenada, W. I., and notes. N. J.—Smith Cat.
palpiger WHEELER, Psyche, June, 1890, 360.—Milwaukee Co., Wis.
parvulus ALDRICH, Dipt. St. Vincent, 321.—St. Vincent, W. I.
rauterbergi WHEELER, Psyche, June, 1890, 360.—Saline Co., Nebr.
satrapa WHEELER, Psyche, June, 1890, 359.—Saline Co., Nebr.
simplex ALDRICH, Dipt. St. Vincent, 333, pl. xii, f. 117 (*Lyroneurus*); Biologia, Dipt. i, 345; Kans. Univ. Sci. Bull., i, 85, 87.—St. Vincent, W. I. (type); Mexico, several places; Grenada, W. I.
sodalis LOEW, Neue Beitr., viii, 58; Mon. N. A. Dipt., ii, 163.—N. Y.
 HOWARD, Proc. Wash. Acad. Sci., ii, 561, reared from human excrement in Md.
 N. J.—Smith Cat.
spectabilis LOEW, Neue Beitr., viii, 57; Mon. N. A. Dipt., ii, 162.—D. C.
 ALDRICH, Dipt. St. Vincent, 321 (*approximatus*); Ent. News, xi, 533, syn.; Biologia, Dipt., i, 345; Kans. Univ. Sci. Bull., i, 87.—St. Vincent, W. I.; Mexico, several places; Grenada, W. I.
subsejunctus LOEW, Cent., vi, 83.—Cuba.

ASYNDETUS.

- LOEW, Cent., viii, 58, 1869; Besch. Europ. Dipt., ii, 296, 1871.
 WHEELER, Proc. Cal. Acad. Sci., ii, 32, table of species, etc.
 ALDRICH, Kans. Univ. Sci. Bull., i, 87, table of species, etc.
ammophilus LOEW, Cent., viii, 58.—Newport, R. I. N. J.—Smith Cat.

- appendiculatus** LOEW, Cent., VIII, 59.—Newport, R. I.
fratellus ALDRICH, Dipt. St. Vincent, 332, pl. XII, f. 114.—St. Vincent, W. I. Also occurs in Grenada.
interruptus LOEW, Wien. Ent. Monatsch., v, 37; Neue Beitr., VIII, 59; Mon. N. A. Dipt., II, 168 (all *Diaphorus*).—Cuba.
 ALDRICH, Kans. Univ. Sci. Bull., I, 87, gen. ref.
syntormoides WHEELER, Proc. Cal. Acad. Sci., II, 32, pl. II, f. 50-52.—New Bedford and Boston, Mass.; Avalon, N. J.
 ALDRICH, Kans. Univ. Sci. Bull., I, 88, oc. in Grenada, W. I., and Kans.

CHRYSHOTUS.

- MEIGEN, Syst. Besch., IV, 40, 1824.
 SCHINER, Fauna Austr., I, 185, 1862.
 LOEW, Mon. N. A. Dipt., II, 171, 1864.
 KOWARZ, Verh. Zool.-Bot. Ges., XXIV, 453-478, 1874, 1 pl., revision of the European species.
 ALDRICH, Kans. Univ. Sci. Bull., I, 85, 88, table of species, 1902.
abdominalis SAY, see *Thrypticus*.
acutus ALDRICH, Dipt. St. Vincent, 329.—St. Vincent, W. I.
affinis LOEW, Neue Beitr., VIII, 64; Mon. N. A. Dipt., II, 178.—Middle States.
albipalpus ALDRICH, Dipt. St. Vincent, 327.—St. Vincent, W. I. Also occurs in Grenada.
apicalis ALDRICH, see *barbatus*.
auratus LOEW, Neue Beitr., VIII, 65; Mon. N. A. Dipt., II, 183.—N. Y.
barbatus LOEW, Neue Beitr., VIII, 48; Mon. N. A. Dipt., II, 138 (both male only, as *Synarthrus barbatus*); Neue Beitr., VIII, 63; Mon. N. A. Dipt., II, 175 (both female only, as *Chrysotus validus*).—Middle States.
 WHEELER, Ent. News, VII, 154 (*Xiphandrium americanum*).—Wis., Ill., Ind.
 ALDRICH, Dipt. St. Vincent, 330 (*apicalis*); Ent. News., XI, 533, syn.; Kans. Univ. Sci. Bull., I, 90.—St. Vincent and Grenada, W. I.
 Porto Rico—Coq.
choricus WHEELER, Psyche, June, 1890, 357.—Milwaukee Co., Wis.
concinarius SAY, Jour. Acad. Sci., Phil., VI, 168; Compl. Works, II, 361.—Mex. (Unrecognizable.)
cornutus LOEW, Mon. N. A. Dipt., II, 174.—D. C.
costalis LOEW, Neue Beitr., VIII, 64; Mon. N. A. Dipt., II, 179.—Fla., Md.
discolor LOEW, Neue Beitr., VIII, 65; Mon. N. A. Dipt., II, 182.—Middle States.
 ALDRICH, Biologia, Dipt., I, 347.—Guerrero and Tabasco, Mex.
excisus ALDRICH, Dipt. St. Vincent, 325; Biologia, Dipt., I, 348.—St. Vincent, W. I.; Teapa, Mex. Also occurs in Grenada, W. I.
flavus ALDRICH, Dipt. St. Vincent, 326.—St. Vincent, W. I.
hirsutus ALDRICH, Dipt. St. Vincent, 328.—St. Vincent, W. I. Also in Grenada.
incertus WALKER, List, III, 651.—U. S. (Unrecognizable.)
inermis ALDRICH, Dipt. St. Vincent, 330.—St. Vincent, W. I.
longimanus LOEW, Neue Beitr., VIII, 62; Mon. N. A. Dipt., II, 175.—Middle States.
longipalpus ALDRICH, Dipt. St. Vincent, 329.—St. Vincent, W. I. Also in Grenada.
niger ALDRICH, Dipt. St. Vincent, 327.—St. Vincent, W. I. Also in Grenada.
nubilus SAY, Jour. Acad. Sci. Phil., VI, 168; Compl. Works, II, 361.—Ind. (Unrecognizable.)
obliquus LOEW, Neue Beitr., VIII, 633; Mon. N. A. Dipt., II, 176.—N. Y.
 ?SCHINER, Novara, 221, oc. in S. A. (doubtful—J. M. A.).
 N. J.—Smith Cat.
pallipes LOEW, Neue Beitr., VIII, 66; Mon. N. A. Dipt., II, 183.—Middle States.

SCHINER, Novara, 221, oc. in S. A.

Porto Rico—Roeder and Coquillett.

paradoxus ALDRICH, Kans. Univ. Sci. Bull., 1, 90.—Grenada, W. I.

philtrum MELANDER, Ent. News, XIV, 72.—Tex., La. and Pa.

picticornis LOEW, Mon. N. A. Dipt., II, 184.—Ill. [Osten Sacken, Cat., gives the locality as D. C. and Texas.]

WHEELER, Psyche, June, 1890, 358.—Milwaukee Co., Wis.

St. Vincent and Grenada, W. I.; Mex., several places—Aldrich.

pratricula WHEELER, Psyche, June, 1890, 357.—Saline Co., Nebr.

proximus ALDRICH, Dipt. St. Vincent, 326; Kans. Univ. Sci. Bull., 1, 90.—St. Vincent, W. I.; Grenada, W. I.

subcostatus LOEW, Mon. N. A. Dipt., II, 181.—Ill.

teapanus ALDRICH, Biologia, Dipt., 1, 347.—Teapa, Mex.

validus LOEW, see *barbatus*.

viridifemora MACQUART, Dipt. Exot., Suppl., IV, 124.—N. A. (Unrecognizable.)

viduus LOEW, Mon. N. A. Dipt., II, 178.—D. C.

ALDRICH, Biologia, Dipt., 1, 348, oc. in Mexico, several places.

wisconsinensis WHEELER, Psyche, June, 1890, 356.—Milwaukee Co., Wis.

EUTARSUS.

LOEW, Neue Beitr., v, 45, 1857; VIII, 54, 1861; Mon. N. A. Dipt., II, 153, 1864.

loewi ALDRICH, Biologia, Dipt., 1, 349.—Teapa, Mex.

sinuatus ALDRICH, Dipt. St. Vincent, 334, pl. XI, f. 104, pl. XII, f. 110, 115.—St. Vincent, W. I. Occurs also in Grenada.

TEUCHOPHORUS.

LOEW, Neue Beitr., v, 44, 1857; VIII, 66, 1861; Mon. N. A. Dipt., II, 185, 1864.

SCHINER, Fauna Austr., 1, 236, 1862.

KOWARZ, Wien. Ent. Zeitung, 1884, 110, table European species.

WHEELER, Proc. Cal. Acad. Sci., II, 57, 1899, oc. in N. A., etc.

clavigerellus WHEELER, Proc. Cal. Acad. Sci., II, 57, pl. IV, f. 103, 104.—S. D. (Type locality is Brookings, S. D.—J. M. A.)

CAMPSICNEMUS.

HALIDAY, in Walker's Ins. Brit., Dipt., 1, 187, 1851.

LOEW, Neue Beitr., v, 26, 1857; VIII, 68, 1861; Mon. N. A. Dipt., II, 193, 1864.

SCHINER, Fauna Austr., 1, 232, 1862.

KOWARZ, Wien. Ent. Zeitung, 1884, 110, table of European species.

WHEELER, Proc. Cal. Acad. Sci., II, 58, table of species.

claudicans LOEW, Mon. N. A. Dipt., II, 194.—Sitka.

WHEELER, Proc. Cal. Acad. Sci., II, 62, pl. IV, f. 113.—Craig's Mt., Ida.

degener WHEELER, Proc. Cal. Acad. Sci., II, 58, pl. IV, f. 110-112.—Pacific Grove, Cal.; Vollmer, Ida.

hirtipes LOEW, Neue Beitr., VIII, 68; Mon. N. A. Dipt., II, 193.—Pa.

WHEELER, Proc. Cal. Acad. Sci., II, 59, oc. in Middle States.

St. Augustine, Fla.—Johnson.

ædipus WHEELER Proc. Cal. Acad. Sci., II, 60, pl. IV, f. 114.—Two-gwo-te-ee Pass, Wyo.

philoctetes WHEELER, Proc. Cal. Acad. Sci., II, 59, pl. IV, f. 115-117.—Lusk, Little Wind R. Canons, Hunter's Cr., and Jackson's L., all in Wyo.; S. D. (the type locality in S. D. is Brookings.—J. M. A.)

sequax WALKER, List, III, 666 (*Dolichopus*).—Martin Falls, Canada.

LOEW, Mon. N. A. Dipt., II, 317, quotes orig. desc.; p. 24, comments.

thersites WHEELER, Proc. Cal. Acad. Sci., II, 61, pl. IV, f. 118.—Natrona Co., Wind R. Mts., Two-gwo-te-ee Pass, all in Wyo.

RHAPHIINÆ.

ARGYRA.

MACQUART, Hist. Nat. Dipt., I, 456, 1834.

SCHINER, Fauna Austr., I, 188, 1862.

LOEW, Neue Beitr., v, 38, 1857; VIII, 45, 1861; Mon. N. A. Dipt., II, 123, 1864.

MIK, Dipterol. Untersuchungen, 1878 (*Lasiargyra*, in part).

KOWARZ, Verh. Zool.-Bot. Ges., XXVIII, 1878, 437-462, 1 pl., revision of the European species.

albicans LOEW, Neue Beitr., VIII, 45; Mon. N. A. Dipt., II, 125.—D. C.

MIK, Dipterol. Unters., refers to *Lasiargyra*.

N. J.—Smith Cat.; Quebec—Wulp.

albiventris LOEW, Mon. N. A. Dipt., II, 128.—Sitka.

calceata LOEW, Neue Beitr., VIII, 47; Mon. N. A. Dipt., II, 131.—Middle States.

calcitrans LOEW, Neue Beitr., VIII, 46; Mon. N. A. Dipt., II, 130.—N. Y.

N. J.—Smith Cat.

cylindrica LOEW, Mon. N. A. Dipt., II, 132.—Sitka.

minuta LOEW, Neue Beitr., VIII, 46; Mon. N. A. Dipt., II, 129.—D. C.

N. J.—Smith Cat.

nigripes LOEW, Mon. N. A. Dipt., II, 127.—Sitka.

LEUCOSTOLA.

LOEW, Neue Beitr., v, 39; VIII, 53, 1861; Mon. N. A. Dipt., II, 157, 1864.

KOWARZ, Verh. Zool.-Bot. Ges., 1878, 458.

cingulata LOEW, Neue Beitr., VIII, 53; Mon. N. A. Dipt., II, 152.—D. C.

N. J.—Smith Cat.

PORPHYROPS.

MEIGEN, Syst. Besch., IV, 45, 1824.

SCHINER, Fauna Austr., I, 196, 1862.

LOEW, Neue Beitr., VIII, 50, 1861; Mon. N. A. Dipt., II, 142, 1864.

WHEELER, Proc. Cal. Acad. Sci., II, 33, table of species.

consobrinus ZETTERSTEDT, Dipt. Scand., II, 471 and VIII, 3061.—N. Europe.

COQUILLET, Proc. Wash. Acad. Sci., II, 426, oc. in Yakutat and Kukak Bay, Alaska. Note.—The recognition of this European species is somewhat premature, in view of the condition of our present knowledge of the N. A. species.

effilatus WHEELER, Proc. Cal. Acad. Sci., II, 34, pl. II, f. 54, 55; Psyche, June, 1890, 361 (the latter as *P. longipes*).—Buck Creek and Little Wind R., Wyo.; Milwaukee Co., Wis.

fumipennis LOEW, Neue Beitr., VIII, 51; Mon. N. A. Dipt., II, 146.—Middle States.

longipes LOEW, Cent., v, 92; Mon. N. A. Dipt., II, 340.—White Mts., N. H.

Canada—O. S. Cat. See *effilatus* for Wheeler's reference.

melampus LOEW, Neue Beitr., VIII, 50; Mon. N. A. Dipt., II, 141.—Atl. States.

N. J.—Smith Cat.

nigricoxa LOEW, Neue Beitr., VIII, 51; Mon. N. A. Dipt., II, 145.—Md.

N. J.—Smith Cat.

pilosicornis WALKER, see *Pelastoneurus*.

rotundiceps LOEW, Neue Beitr., viii, 51; Mon. N. A. Dipt., ii, 146.—D. C.
signifer OSTEN SACKEN, Cat., 242.—Tarrytown and Manlius, N. Y.
xipheres WHEELER, Proc. Cal. Acad. Sci., ii, 34, pl. ii, f. 53.—Delaware Co., Pa.

RHAPHIUM.

MIEGEN, Illig. Mag., ii, 272, 1803; Syst. Besch., iv, 28, 1824.
 LOEW, Neue Beitr., v, 30, 1857; viii, 49, 1861; Mon. N. A. Dipt., ii, 140, 1864.
lugubre LOEW, Neue Beitr., viii, 49; Mon. N. A. Dipt., ii, 141.—Carolina.
 Delaware Co., Pa.—J. M. A.

NEMATOPROCTUS.

LOEW, Neue Beitr., v, 40, 1857; viii, 53, 1861; Mon. N. A. Dipt., ii, 150, 1864.
venustus MELANDER, Canad. Ent., xxxii, 142, f. 12.—Westville, N. J.

SYNTORMON.

LOEW, Neue Beitr., v, 35, 1857 (*Syntormon* and *Synarthrus*); Mon. N. A. Dipt., ii, 133 and 134 (id.), 1864.
 SCHINER, Fauna Austr., i, 192, 1862.
 WHEELER, Proc. Cal. Acad. Sci., ii, 36, 1899, reinstates *Synarthrus*.
 MIK, Wien. Ent. Zeitung, xix, 20, 1899.
affine WHEELER, Proc. Cal. Acad. Sci., ii, 38, pl. iii, f. 56-59 (*Synarthrus*).—Monterey, Cal.
barbatum LOEW, see *Chrysotus*.
cinereiventris LOEW, Neue Beitr., viii, 48; Mon. N. A. Dipt., ii, 137 (both *Synarthrus*).—Middle States. Texas—O. S. Cat.
 LOEW, Zeitsch. f. Ges. Naturwiss., xliv, 1874, 77, male (id.).
 WHEELER, Psyche, June, 1890, 362 (id.).—Wis
palmare LOEW, Mon. N. A. Dipt., ii, 135 (*Synarthrus*).—Sitka. Wash.—J. M. A.
quadratum ALDRICH, Biologia, Dipt., i, 342, pl. vi, f. 18.—Mexico City.
stratægum WHEELER, Proc. Cal. Acad. Sci., ii, 39, pl. iii, f. 60, 61 (*Synarthrus*).—Lusk, Wyo.; Monterey, Cal.

SYMPYCNINÆ.

PARASYNTORMON.

WHEELER, Proc. Cal. Acad. Sci., ii, 41, 1899, def. and table of species.
asellus WHEELER, Proc. Cal. Acad. Sci., ii, 42.—Coronado, Cal.
emarginatum WHEELER, Proc. Cal. Acad. Sci., ii, 45, pl. iii, f. 75.—Monterey and San Diego, Cal.
hinnulus WHEELER, Proc. Cal. Acad. Sci., ii, 44, pl. iii, f. 72, 73.—Lusk, Wyo.
lagotis WHEELER, Proc. Cal. Acad. Sci., ii, 43, pl. iii, f. 70, 71.—Monterey, Cal.
montivagum WHEELER, Proc. Cal. Acad. Sci., ii, 46, pl. iii, f. 74.—Wind R. Mts., Wyo.
occidentale ALDRICH, Kans. Univ. Quart., ii, 1894, 153 (*Sympycnus*).—Wyo.
 WHEELER, Proc. Cal. Acad. Sci., ii, 43, oc. in Wind R. Mts., Wyo., and gen. ref.
wheeleri ALDRICH, Biologia, Dipt., i, 343, pl. vi, f. 19.—Mexico City.

SYMPYCNUS.

LOEW, Neue Beitr., v, 42, 1857; viii, 66, 1861; Mon. N. A. Dipt., ii, 185, 1864.
 SCHINER, Fauna Austr., i, 231, 1862.

- KOWARZ, Wien. Ent. Zeitung, 1889, 175, synopsis of the European spp.
 WHEELER, Proc. Cal. Acad. Sci., II, 47, table of species, and def.
angustipennis ALDRICH, Biologia, Dipt., I, 344, pl. VI, f. 20.—Orizaba, Mex.
coxalis ALDRICH, Biologia, Dipt., I, 344, pl. VI, f. 21.—Teapa, Mex.
cuprinus WHEELER, Proc. Cal. Acad. Sci., II, 50, pl. IV, f. 99, 100.—Monterey, Cal.
 COQUILLET, Proc. Wash. Acad. Sci., II, 426, oc. in Juneau and Popof Id., Alaska.
falco ALDRICH, Dipt. St. Vincent, 336.—St. Vincent, W. I. Also occurs in Grenada.
frater ALDRICH, Kans. Univ. Sci. Bull., I, 83.—Grenada, W. I.
frontalis LOEW, see *Nothosympycnus*.
lineatus LOEW, Neue Beitr., VIII, 67; Mon. N. A. Dipt., II, 189.—Va., N. Y.
 WHEELER, Proc. Cal. Acad. Sci., II, 49, pl. IV, f. 96-98.—Wis., several places.
 N. J.—Smith Cat.
marcidus WHEELER, Proc. Cal. Acad. Sci., II, 48, pl. IV, f. 92-95.—Little Wind R. Canon, Dinwiddie Cr., Buck Cr., Dubois,—all in W. Wyo.
nodatus LOEW, see *Nothosympycnus*.
occidentalis ALDRICH, see *Parasyntormon*.
pugil WHEELER, Proc. Cal. Acad. Sci., II, 51, pl. IV, f. 101, 102.—Seattle, Wash.
similis ALDRICH, Dipt. St. Vincent, 336; Kans. Univ. Sci. Bull., I, 84.—St. Vincent (type) and Grenada, W. I.
tertianus LOEW, Mon. N. A. Dipt., II, 187.—Sitka.
variipes ALDRICH, Biologia, Dipt., I, 344.—Guerrero, Mex.

NOTHOSYMPYCNUM.

- WHEELER, Proc. Cal. Acad. Sci., II, 51, 1899, def. and table of species.
fortunatus WHEELER, Proc. Cal. Acad. Sci., II, 52, pl. III, f. 83-85.—Natrona, Pa.
 N. J.—Smith Cat.
frontalis LOEW, Neue Beitr., VIII, 67; Mon. N. A. Dipt., II, 188 (*Sympycnus*).—Pa.
 WHEELER, Proc. Cal. Acad. Sci., II, 47, gen. ref.
nodatus LOEW, Cent., II, 68; Mon. N. A. Dipt., II, 185 (*Sympycnus*).—Ill.
 WHEELER, Proc. Cal. Acad. Sci., II, 56, notes and gen. ref.—Wis.
oreas WHEELER, Proc. Cal. Acad. Sci., II, 55, pl. III, f. 86, 87.—Buck Cr., Wyo.
sobrinus WHEELER, Proc. Cal. Acad. Sci., II, 54, pl. III, f. 88-91.—Lewiston, Idaho.
vegetus WHEELER, Proc. Cal. Acad. Sci., II, 53, pl. III, f. 76-79.—Monterey, Cal.

ANEPSIOMYIA.

- BEZZI, Zeitsch. f. Hym. und Dipterologie, 1902, 192, change of name.
 LOEW, Neue Beitr., V, 45, 1857; VIII, 45, 1861; Mon. N. A. Dipt., II, 123, 1864 (all *Anepsius*, preoc.).
linearis ALDRICH, Dipt. St. Vincent, 317.—St. Vincent, W. I. Also occurs in Grenada.

NEURIGONINÆ.

NEURIGONA.

- RONDANI, Dipt., Ital. Prodrum, I, 142, 1856.
 LOEW, Neue Beitr., V, 41, 1857; VIII, 75, 1861; Mon. N. A. Dipt., II, 224, 1864 (all as *Saucropus*).
 ALDRICH, Kans. Univ. Quarterly, II, 151, 1894 (*Dactylomyia*, in part); Ent. News., XI, 531, syn.

- WHEELER, Proc. Cal. Acad. Sci., II, 72, table of species, 1899.
carbonifer LOEW, Cent., IX, 84 (*Saucropus*).—N. Y.
 WHEELER, Proc. Cal. Acad. Sci., II, 72, female (*floridula*).—Md., N. Y., Ill. White Mts., N. H.—Slosson (*floridula*).
decora ALDRICH, Kans. Univ. Sci. Bull., I, 83.—Grenada and St. Vincent, W. I.
dimidiata LOEW, Neue Beitr., VIII, 75; Mon. N. A. Dipt., II, 225 (*Saucropus*).—Fla., D. C.
floridula WHEELER, see *carbonifer*.
lateralis SAY, Proc. Acad. Sci., Phil., VI, 169; Compl. Works, II, 362 (*Medeterus*).—Indiana.
 LOEW, Neue Beitr., VIII, 76; Mon. N. A. Dipt., II, 227 (both *Saucropus superbiens*).—Fla., D. C., N. Y.
 ALDRICH, Kans. Univ. Quart., II, 151 (*Dactylomyia gracilipes*); Ent. News, XI, 531, syn.—S. D.
 WHEELER, Proc. Cal. Acad. Sci., II, 73, syn. of *gracilipes*.—Mass., Ill.
lienosa WHEELER, Proc. Cal. Acad. Sci., II, 73.—Monterey, Cal.
rubella LOEW, Neue Beitr., VIII, 76; Mon. N. A. Dipt., II, 226 (*Saucropus*).—Berkeley Spr., Va. N. J.—Smith Cat.; White Mts., N. H.—Slosson.
signifer ALDRICH, Dipt. St. Vincent, 337.—St. Vincent, W. I. Occurs also in Grenada.
superbiens LOEW, see *lateralis*.
tenuis LOEW, Mon. N. A. Dipt., II, 228 (*Saucropus*).—Middle States.

XANTHOCHLORINÆ.

ACHALCUS.

- LOEW, Neue Beitr., V, 30, 1857; VIII, 72, 1861; Mon. N. A. Dipt., II, 217, 1864.
caudatus ALDRICH, Kans. Univ. Sci. Bull., I, 93.—Grenada, W. I.
sordidus ALDRICH, Dipt. St. Vincent, 339, pl. XI, f. 107, 107a.—St. Vincent, W. I. Occurs also in Grenada.

CHRYBOTIMUS.

- LOEW, Neue Beitr., V, 48, 1857; VIII, 73, 1861; Mon. N. A. Dipt., II, 220, 1864.
barbatus ALDRICH, Kans. Univ. Sci. Bull., I, 91.—Grenada, W. I.
delicatus LOEW, Neue Beitr., VIII, 74; Mon. N. A. Dipt., II, 222.—N. Y.
pusio LOEW, Neue Beitr., VIII, 74; Mon. N. A. Dipt., II, 221.—N. Y.
 WHEELER, Psyche, July, 1890, 374.—Wis.

XANTHOCHLORUS.

- LOEW, Neue Beitr., V, 42, 1857; VIII, 74, 1861; Mon. N. A. Dipt., II, 223, 1864.
 SCHINER, Fauna Austr., I, 184, 1862.
helvinus LOEW, Neue Beitr., VIII, 75; Mon. N. A. Dipt., II, 224.—Chicago.
 WHEELER, Psyche, July, 1890, 377.—Milwaukee, Wis.
 White Mts., N. H.—Slosson.

XANTHINA.

- ALDRICH, Kans. Univ. Sci. Bull., I, 92, 1902.
plumicauda ALDRICH, op. cit., pl. IV.—Grenada, W. I.

THINOPHILINÆ.

THINOPHILUS.

WAHLBERG, Oefv. of k. Vetensk. Akad. Förhandl., 1844, 37.

SCHINER, Fauna Austr., I, 227, 1862.

LOEW, Mon. N. A. Dipt., II, 148, 1864.

MIK, Dipt. Untersuch., 1878 (*Schanophilus*).

WHEELER, Ent. News, VII, 153; Proc. Cal. Acad. Sci., II, 69, 1899.

neglectus WHEELER, Proc. Cal. Acad. Sci., II, 70.—Cape May, N. J.

pectinifer WHEELER, Ent. News., VII, 155.—Lusk, Wyo.

DIOSTRACUS.

LOEW, Neue Beitr., VIII, 43, 1861; Mon. N. A. Dipt., II, 120, 1864.

prasinus LOEW, Neue Beitr., VIII, 44; Mon. N. A. Dipt., II, 121.—N. Y.

HYPOCHARASSUS.

MIK, Verh. Zool.-Bot. Ges., 1878, 627.

WILLISTON, Synops. Fam. and Gen., 1886, 82, quotes desc.

WHEELER, Zoolog. Bulletin, I, 217, 1898 (*Drepanomyia*).

gladiator MIK, Verh. Zool.-Bot. Ges., 1878, 628.—Ga.

WHEELER, Zool. Bull., I, 219, fig. (*Drepanomyia johnsoni*).—Fla.

MIK, Wien. Ent. Zeitung, XIX, 21, syn.

pruinosis WHEELER, Zool. Bull., I, 218, figs. (*Drepanomyia*).—Fla.

Wood's Hole, Mass.—Wheeler in litt.

PHYLARCHUS.

ALDRICH, Biologia, Dipt., I, 342, 1902.

tripartitus ALDRICH, op. cit., pl. VI, f. 16.—Vera Cruz, Mex.

MEDETERINÆ.

MEDETERUS.

FISCHER VON WALDHEIM, notice sur une Mouche carnivore, Moscow, 1819.

SCHINER, Fauna Austr., I, 236, 1862.

LOEW, Mon. N. A. Dipt., II, 218, 1864.

MEIGEN, Syst. Besch., IV, 59, 1824.

KOWARZ, Verh. Zool.-Bot. Ges., XXVII, 1877, 39-76, revision of the European species.

WHEELER, Proc. Cal. Acad. Sci., II, 20, table of species, 1899.

Note.—Prof. A. D. Hopkins informed me that he has reared specimens of this genus from larvæ taken in burrows of Scolytidæ, and thinks they are predaceous on the latter insect.

aberrans WHEELER, Proc. Cal. Acad. Sci., II, 22, pl. II, f. 40.—Avalon, N. J.

aldrichii WHEELER, Proc. Cal. Acad. Sci., II, 24.—Moscow, Idaho.

appendiculatus WHEELER, Proc. Cal. Acad. Sci., II, pl. II, f. 41-43.—Lance Cr., Wyo.

aurivittatus WHEELER, Proc. Cal. Acad. Sci., II, 29, pl. II, f. 47.—Moscow, Idaho.

californiensis WHEELER, Proc. Cal. Acad. Sci., II, 27, pl. II, f. 44, 45.—Palo Alto, Cal.

cyanogaster WHEELER, Proc. Cal. Acad. Sci., II, 27.—Colfax, Wash.

exiguus ALDRICH, Kans. Univ. Sci. Bull., I, 91.—Grenada, W. I.

lateralis SAY, see *Neurigona*.

- maurus** WHEELER, Proc. Cal. Acad. Sci., II, 23, pl. II, 46.—Mt. Wash., N. H.
nigripes LOEW, Neue Beitr., VIII, 73; Mon. N. A. Dipt., II, 218.—Middle States.
 N. J.—Smith Cat.; Fla.—Johnson.
petulcus WHEELER, Proc. Cal. Acad. Sci., II, 21.—Colfax, Wash.
princeps WHEELER, Proc. Cal. Acad. Sci., II, 25, pl. II, f. 29-32.—Farmingdale,
 N. J.
veles LOEW, Neue Beitr., VIII, 73; Mon. N. A. Dipt., II, 219.—Fla.
 WHEELER, Proc. Cal. Acad. Sci., II, 26, pl. II, f. 36-38.—Middle States,
 Chicago.
viduus WHEELER, Proc. Cal. Acad. Sci., II, 24, pl. II, f. 39.—Olympia, Wash.
xerophilus WHEELER, Proc. Cal. Acad. Sci., II, 28, pl. II, f. 33-35.—Pacific Grove,
 Cal.

PELOROPEODES.

- WHEELER, Psyche, July, 1890, 373.
 MIK, Wien. Ent. Zeitung, 1892, 3, notes on position, etc.
salax WHEELER, Psyche loc. cit.—Milwaukee Co., Wis.

THRYPTICUS.

- GERSTÆCKER, Stett. Ent. Zeit., 1866, 43.
 WHEELER, Psyche, July, 1890, 375 (*Aphantotimus*).
 MIK, Wien. Ent. Zeitung, 1891, 4, syn. of *Aphantotimus*.
 ALDRICH, Trans. Ent. Soc. Lond., 1896, 339 (*Xanthotricha*); Ent. News,
 XI, 532, syn.
 WHEELER, Proc. Cal. Acad. Sci., II, 30, table of species, 1899.
 ? **abdominalis** SAY, Jour. Acad. Sci. Phil., VI, 169; Compl. Works, II, 362
 (*Chrysotus*).
 LOEW, Mon. N. A. Dipt., II, 172, notes, and 291, orig. desc.
 (On account of the bright green color, "white" feet, and purple face, I
 feel safe in referring to this genus, although I cannot identify it).
cupuliferus ALDRICH, Trans. Ent. Soc. Lond., 1896, 339, pl. x, f. 106 (*Xantho-*
tricha).—St. Vincent, W. I.
 Grenada, W. I., and Mexico City—Aldrich.
fraterculus WHEELER, Psyche, July, 1890, 376 (*Aphantotimus*); Proc. Cal. Acad.
 Sci., II, 31, pl. II, f. 48, notes.—Milwaukee Co., Wis.
 ALDRICH, Biologia, Dipt., I, 349, oc. in Mexico City.
minor ALDRICH, Trans. Ent. Soc. Lond., 1896, 340 (*Xanthotricha*).—St. Vincent,
 W. I. Also occurs in Grenada.
pusillus ALDRICH, Biologia, Dipt., I, 349.—Teapa, Mex.
singularis ALDRICH, Trans. Ent. Soc. Lond., 1896, 340 (*Xanthotricha*).—St. Vin-
 cent, W. I.
willistoni WHEELER, Psyche, July, 1890, 376 (*Aphantotimus*); Proc. Cal. Acad.
 Sci., II, 31, pl. II, f. 49.—Milwaukee Co., Wis. (type); Ill., Wyo.

CÆOLOGLUTUS.

- ALDRICH, Trans. Ent. Soc. London, 1896, 338.
concaus ALDRICH, op. cit., pl. XI, f. 105.—St. Vincent, W. I.

HYDROPHORINÆ.

HYDROPHORUS.

- FALLÉN, Dolichopodes, 1823, 4.
 WAHLBERG, Oefv. of K. Vetensk. Akad. Förhandl., 1844.

LOEW, Neue Beitr., v, 22, 1857; VIII, 71, 1861; Mon. N. A. Dipt., II, 211, 1864.

SCHINER, Fauna Austr., I, 229, 1862 (inclusive of *Scellus*).

KOWARZ, Wien. Ent. Zeit., 1884, 109, table of European species.

WHEELER, Ent. News, 1896, 185 (*Parhydroporus*, in part); Proc. Cal. Acad. Sci., II, 62, table of species.

æstum LOEW, Cent., VIII, 60.—Newport, R. I.

agalma WHEELER, Proc. Cal. Acad. Sci., II, 33, 66, pl. IV, f. 120, 121.—Battle Creek, Mich.

? albiflorens WALKER, List, III, 656 (*Medeterus*).—Nova Scotia.

WHEELER, Proc. Cal. Acad. Sci., II, 63, genus doubtful.

algens WHEELER, Proc. Cal. Acad. Sci., II, 63, pl. IV, f. 123.—Two-gwo-te-ee Pass, W. Wyo.

brevisetæ THOMSON, Eugen. Resa, 510 (*Medeterus*).—Cal.

canescens WHEELER, Ent. News, VII, 187, fig. (*Parhydroporus*).—40 miles n. of Lusk, Wyo. Lawrence, Kans.—J. M. A.

cerutias LOEW, Cent., x, 65.—Texas. Lawrence, Kans.—J. M. A.

chrysologus WALKER, List, III, 655 (*Medeterus*).—Martin Falls, Canada.

LOEW, Mon. N. A. Dipt., 215, 309, quotes desc., with comments.

WHEELER, Proc. Cal. Acad. Sci., II, 63, notes.

(Scarcely identifiable.)

eldoradensis WHEELER, Proc. Cal. Acad. Sci., II, 65, pl. IV, f. 125.—Wyo., Cal., N. M., Texas, Kansas.

glaber WALKER, List, III, 665 (*Medeterus*).—Martin Falls, Canada.

LOEW, Mon. N. A. Dipt., II, 215, 309, quotes desc.

COQUILLET, Proc. Wash. Acad. Sci., II, 426, oc. at Metlakahtla, Alaska.

White Mts., N. H.—Slosson.

innotatus LOEW, Mon. N. A. Dipt., II, 212.—Sitka.

lateralis SAY, see *Argyra*.

magdalenæ WHEELER, Proc. Cal. Acad. Sci., II, 67, pl. IV, f. 124.—Magdalena, N. M.

parvus LOEW, Cent., II, 67; Mon. N. A. Dipt., II, 216.—Pa.

WHEELER, Proc. Cal. Acad. Sci., II, 64, pl. IV, f. 119.—Worcester, Mass.

philombrius WHEELER, Psyche, July, 1890, 378; Proc. Cal. Acad. Sci., II, 65, pl. IV, f. 126, 127.—Milwaukee Co., Wis. (type); Texas.

pirata LOEW, Neue Beitr., VIII, 71; Mon. N. A. Dipt., II, 214.—Pa.

N. J.—Smith Cat.

punctipennis SAY, see *Pelastoneurus*.

signiferus COQUILLET, Dipt. of Commander Ids., 344.—Bering Id.

sodalis WHEELER, Proc. Cal. Acad. Sci., II, 68, pl. IV, f. 122.—Lusk, etc., Wyo.

viridiflos WALKER, Dipt. Saund., 212.—N. A. Mass.—O. S.

SCELLUS.

LOEW, Neue Beitr., v, 22, 1857; VIII, 70, 1861; Mon. N. A. Dipt., II, 200, 1864.

avidus LOEW, Mon. N. A. Dipt., II, 207.—Ft. Resolution, Huds. Bay Terr.

Professor Wheeler collected the species in Wyoming.

exustus WALKER, Dipt., Saund., 211 (*Medeterus*).—N. A.

LOEW, Neue Beitr., VIII, 71; Mon. N. A. Dipt., II, 203.—Middle States, Ill.

S. D., Ida., Wash., in grass—J. M. A.

filifer LOEW, Mon. N. A. Dipt., II, 209.—Ft. Resolution, Huds. Bay Terr.

Custer, S. D., on pine trunks—J. M. A.

monstrosus OSTEN SACKEN, West. Dipt., 319.—British Columbia.

spinimanus ZETTERSTEDT, Ins. Lapp., 701 (*Hydrophorus notatus*); Dipt. Scand., II, 445 (*Hydrophorus*).—N. Europe.

LOEW, Mon. N. A. Dipt., II, 205.—Ft. Resolution, Huds. Bay Terr.

vigil OSTEN SACKEN, West. Dipt., 318.—Webber L., Cal., on stones.

LIANCALUS.

LOEW, Neue Beitr., v, 22, 1857; VIII, 70, 1861; Mon. N. A. Dipt., II, 198, 1864.

RONDANI, Dipt. Ital. Prod., I, 141, 1856 (*Anoplomerus*, preoc.).

SCHINER, Fauna Austr., I, 228, 1864.

MIK, Dipterol. Untersuch., 1878 (*Allaoneurus*, in part, as to which see Osten Sacken, Berl. Ent. Zeitsch., XLI, 1896, 326, postscript).

genualis LOEW, Neue Beitr., VIII, 70; Mon. N. A. Dipt., II, 199.—Middle States.

N. J.—Smith Cat.; about the cascades at Ithaca, N. Y.—J. M. A.

hydrophilus ALDRICH, Psyche, Dec., 1893, 569.—Custer, in West. S. D.

querulus OSTEN SACKEN, West. Dipt., 318.—The Geysers, Sonoma Co., Cal.

Thousand Springs, on Snake R., in S. Idaho—J. M. A.

similis ALDRICH, Psyche, Dec., 1893, 571.—Wash. Occurs also at Kendrick, Idaho.

PLAGIONEURINÆ.

PLAGIONEURUS.

LOEW, Wien. Ent. Monatschr., I, 43, 1857; Mon. N. A. Dipt., II, 196, 1864.

WHEELER, Proc. Cal. Acad. Sci., II, 71, 1899.

univittatus LOEW, Wien. Ent. Monatschr., I, 43; Neue Beitr., VIII, 69, 1861; Mon. N. A. Dipt., 196, pl. VI, f. 36.—Cuba; also in Brazil.

WILLISTON, Trans. Amer. Ent. Soc., XIII, 295, male.—San Domingo.

WHEELER, Proc. Cal. Acad. Sci., II, 71, pl. VI, f. 36.—Wis., III.

ALDRICH, Kans. Univ. Sci. Bull., I, 83, oc. in Grenada, W. I., and note on dist.—S. D., Nebr., Mass. Mrs. Slosson collected several in Fla.

APHROSYLINÆ.

APHROSYLUS.

WALKER, Ins. Britannica, I, 220, 1851.

LOEW, Neue Beitr., v, 55, 1857; VIII, 52, 1861; Mon. N. A. Dipt., II, 148, 1864.

SCHINER, Fauna Austr., I, 202, 1862.

WHEELER, Proc. Cal. Acad. Sci., I, 145, def. and table of species, 1897; larva on p. 150, pl. IV, fig. 14, found in tufts of algæ on rocks along seashore.

direptor WHEELER, op. cit., 148, pl. IV, f. 7-10.—Pacific Grove, Cal.

grassator WHEELER, op. cit., 149, pl. IV, f. 12, 13.—Pacific Grove, Cal.

prædator WHEELER, op. cit., 146, pl. IV, f. 1-6.—Pacific Grove and San Diego Co., Cal.

DOLICHOPINÆ.

DOLICHOPUS.

LATREILLE, Précis des caract. générique des Insectes, 1797; Hist. Nat. Crust. et Ins., III, 439, 1802 and XIV, 333, 1804.

MEIGEN, Syst. Besch., IV, 74, 1824.

MACQUART, Hist. Nat. Dipt., I, 459, 1834.

ZETTERSTEDT, Dipt. Scand., II, 493, 1843.

- RONDANI, Dipt. Ital. Prod., I, 144, 1856 (*Rhageneura* and *Achantipodus*).
 LOEW, Neue Beitr., v, 10, 1857; VIII, 5, 1861; Mon. N. A. Dipt., II, 18, 1864
 (*Hygroceleuthus* and *Dolichopus*).
 SCHINER, Fauna Austr., I, 212 (id.), 1864.
 KOWARZ, Wien. Ent. Zeit., 1884, 53, table of European species.
 BIGOT, Annales, 1890, 292 (*Spatichira*, in part).
 ALDRICH, Kans. Univ. Quart., II, 1 and 23, tables of species of *Dolichopus*
 and *Hygroceleuthus* in N. A.
 MELANDER and BRUES, Biolog. Bull., I, 123, *Hygroceleuthus* as a subgenus,
 table of species.
- abdominalis** SAY, Jour. Acad. Sci. Phil., VI, 170; Compl. Works, II, 362.—Ind.
 (Unrecognizable; probably an *Argyra*.)
- acuminatus** LOEW, Neue Beitr., VIII, 12; Mon. N. A. Dipt., II, 34.—Ill.
 N. J.—Smith Cat.; Wis.—Mel. and Brues; Mich.—J. M. A.
- adjacens** WALKER, List, III, 661.—Martin Falls, Canada. (Unrecognizable.)
- æneus** DEGEER, Mém. Hist. Nat. Ins., VI, 78, pl. IX, f. 14-22.—N. Europe.
 FABRICIUS, Syst. Antl., 266, etc. (*ungulatus* Linn.).
 STANNIUS, Isis, 1831, 130 (id.).
 GUÉRIN, Iconographie, 96 (id.).
 MACQUART, Annales, II, ser. 2, 186 (id.).
 SCHINER, Fauna Austr., I, 222.
 VAN DER WULP, Tijdschr. v. Ent., XII, 1869, 80, oc. in Wis.
 BRAUER, Zweifl. d. Kaiserl. Mus., III, 44, pl. IV, f. 72-75, desc. of larva, which
 lives in damp vegetable mold.
- affinis** WALKER, List, III, 659.—Nova Scotia. (Unrecognizable.)
- afflictus** OSTEN SACKEN, West. Dipt., 313 (*Hygroceleuthus*).—Marin Co., Cal.
 WHEELER, Proc. Cal. Acad. Sci., II, 3, oc. in Cal. and Ariz. (id.).
 MELANDER and BRUES, Biolog. Bull., I, 132, figs.—Wyo.
- agronomus** MELANDER and BRUES, Biolog. Bull., I, 140, figs.—New Bedford, Mass.
- albiciliatus** LOEW, Cent., II, 59; Mon. N. A. Dipt., II, 31.—Ill. West. N. Y.—O. S.
 WHEELER, Psyche, May, 1890, 338, male.—Wis.
 ALDRICH, Kans. Univ. Quart., II, 9, notes.—N. J.
 Montreal—Chagnon; White Mts., N. H.—Slosson; Mass.—M. and B.
- albicoxa** ALDRICH, Kans. Univ. Quart., II, 10, pl. I, f. 13.—Mass., Conn.
 N. J.—Smith Cat.; Ill.—M. and B.; Mich.—J. M. A.
- aldrichii** WHEELER, Proc. Cal. Acad. Sci., II, 3, pl. I, f. 1-3 (*Hygroceleuthus*).—
 Moscow, Idaho, and West. Wyo.
 MELANDER and BRUES, Biolog. Bull., I, 129, figs.—Col.
- amnicola** MELANDER and BRUES, Biolog. Bull., I, 130, figs. (*Hygroceleuthus*).—
 North Park, Col. Cache Co., Utah, and Oneida Co., Ida.—J. M. A.
- amphericus** MELANDER and BRUES, Biolog. Bull., I, 146, figs.—Price Co., Wis.
- angustatus** ALDRICH, Kans. Univ. Quart., II, 15, pl. I, f. 4.—Mass.
- apheles** MELANDER and BRUES, Biolog. Bull., I, 144, figs.—Milwaukee, Wis.
- aurifacies** ALDRICH, Kans. Univ. Quart., II, 20.—Tenn., Kans.
- aurifer** THOMSON, see *Hercostomus*.
- barycnemus** COQUILLET, Proc. Wash. Acad. Sci., II, 424.—Popof Id., Alaska.
- batillifer** LOEW, Neue Beitr., VIII, 5; Mon. N. A. Dipt., II, 31.—Ill., West Point,
 N. Y. Mass.—M. and B.; N. J.—Smith Cat.; White Mts., N. H.—
 Slosson.
- bifRACTUS** LOEW, Neue Beitr., VIII, 19; Mon. N. A. Dipt., II, 53.—Chicago, Nebr.
 ALDRICH, Kans. Univ. Quart., II, 12, pl. I, f. 14.—N. H. to N. D. and Kans.
 Montreal—Chagnon; Cuernavaca, Mex.—Aldrich.

bifrons WALKER, see *Pelastoneurus*.

brevimanus LOEW, Neue Beitr., VIII, 14; Mon. N. A. Dipt., II, 39.—D. C. Mass., N. H., N. J., Wis.—M. and B.

LOEW, Berl. Ent. Zeitsch., VI, 211 (*socius*); Mon. N. A. Dipt., II, 40 (id.).—Ill.

ALDRICH, Kans. Univ. Quart., II, 10, Mass.; notes (*socius*).

brevipennis MEIGEN, Syst. Besch., IV, 89.—Europe.

FALLÉN, Dolichopodes, 10 (var. of *planitarsis*).

STANNIUS, Isis, 1831, 60.

SCHINER, Fauna Austr., I, 221.

LOEW, Mon. N. A. Dipt., II, 37.—Ft. Resolution, Huds. Bay Terr.

ALDRICH, Kans. Univ. Quart., II, 10, pl. I, f. 6.

brunneus ALDRICH, Kans. Univ. Quart., II, 14.—S. D.

calainus MELANDER and BRUES, Biolog. Bull., I, 138, fig.—Chicago.

calcaratus ALDRICH, Kans. Univ. Quart., II, 8.—N. J.

Mass.—M. and B.; White Mts., N. H.—Slosson.

canaliculatus THOMSON, Eugen. Resa, 512.—Cal.

OSTEN SACKEN, West. Dipt., 315.—Marin Co., Cal.

chrysostoma LOEW, Neue Beitr., VIII, 23; Mon. N. A. Dipt., II, 67.—D. C.

? WALKER, List, 665 (*terminatus*).—N. A. [LOEW, Mon., 24 and 316, with a doubt.]

ciliatus WALKER, List, III, 661.—Martin Falls, Canada. (Unrecognizable.)

ciliatus ALDRICH, Kans. Univ. Quart., II, 25, pl. I, f. 28 (*Hygrocleuthus*).—S. D., Wyo.

WHEELER, Proc. Cal. Acad. Sci., II, 3, oc. in Wyo. (id.).

MELANDER and BRUES, Biolog. Bull., I, 133, figs. (id.).

coercens WALKER, List, III, 661.—N. Y. (Unrecognizable.)

coloradensis ALDRICH, Kans. Univ. Quart., II, 16, pl. I, f. 19 (*agilis*, preoc.; see note, loc. cit., 26, where name is changed).—Col.

Beulah, N. M.—Skinner.

comatus LOEW, Neue Beitr., VIII, 23; Mon. N. A. Dipt., II, 69.—Pa., Md., D. C.

ALDRICH, Kans. Univ. Quart., II, 14, pl. I, f. 25.—N. J., Pa.

Mass., Ill., Wis.—M. and B.

confinis WALKER, List, III, 664.—Martin Falls, Canada. (Unrecognizable.)

consanguineus WHEELER, Proc. Cal. Acad. Sci., II, 5, pl. I, f. 5-7 (*Hygrocleuthus*).—Monterey, Cal.

MELANDER and BRUES, Biolog. Bull., I, 131, figs. (id.).

var. **propinquus** MELANDER and BRUES, loc. cit. (id.).—Vancouver Id.

consors WALKER, Dipt. Saund., 213.—U. S. (Unrecognizable.)

conterminus WALKER, List, III, 664.—N. Y. (Unrecognizable.)

contiguus WALKER, List, III, 663.—N. Y. (Unrecognizable.)

contingens WALKER, Dipt. Saund., 213.—U. S. (Unrecognizable.)

convergens ALDRICH, Kans. Univ. Quart., II, 9.—Ore., Wash.

coquiletti ALDRICH, Kans. Univ. Quart., II, 19, pl. I, f. 17.—Cal.

Common at Moscow, Idaho—J. M. A.; Vancouver Id.—M. and B.

corax OSTEN SACKEN, West. Dipt., 314.—Webber L., Cal.

ALDRICH, Kans. Univ. Quart., II, 7.—Cal.

crenatus OSTEN SACKEN, West. Dipt., 312 (*Hygrocleuthus*).—Sonoma Co., Cal.

ALDRICH, Kans. Univ. Quart., II, 24, pl. I, f. 27, 27a (id.).—Cal., Wash.

WHEELER, Proc. Cal. Acad. Sci., II, 3, pl. I, f. 4 (id.).—Ida., Wyo., Wash.

MELANDER and BRUES, Biolog. Bull., I, 131, figs. (id.).—Wyo. and Vancouver Id.

ALDRICH, Amer. Naturalist, 1894, 35, courtship (id.).

cuprinus WIEDEMANN, *Atuss. Zw.*, II, 230.—Md., Va.

SAY, *Jour. Acad. Sci. Phil.*, III, 86; *Compl. Works*, II, 76 (*cupreus*, preoc.).—Md. and Va.

LOEW, *Neue Beitr.*, VIII, 20; *Mon. N. A. Dipt.*, II, 55.—Middle States; Nebr.

ALDRICH, *Kans. Univ. Quart.*, II, 12, pl. I, f. 7; notes.—Mass. to Kans.

III., Wis., Wyo.—M. and B.; Montreal—Chagnon; White Mts., N. H.—Slosson.

dakotensis ALDRICH, *Kans. Univ. Quart.*, II, 11, pl. I, f. 1.—Brookings, S. D.

detersus LOEW, *Cent.*, VII, 79.—Saratoga, N. Y. (O. S. gives Western N. Y.)

ALDRICH, *Kans. Univ. Quart.*, II, 8.—Minn., S. D. Ill.—M. and B.

discessus WALKER, *List*, III, 662.—Mass. (Unrecognizable.)

discifer STANNIUS, *Isis*, 1831, 57.—Europe.

MEIGEN, *Syst. Besch.*, IV, 86 (*patellatus* FLL.).

SCHINER, *Fauna Austr.*, I, 216.

LOEW, *Neue Beitr.*, VIII, 24 (*tanypus*); *Mon. N. A. Dipt.*, II, 71.—English R., Canada; Red R.; Sitka; White Mts., N. H.

COQUILLETT, *Proc. Wash. Acad. Sci.*, II, 423, oc. in Alaska, several places.

distractus WALKER, *List*, III, 662.—N. Y. (Unrecognizable.)

dorycerus LOEW, *Cent.*, V, 85; *Mon. N. A. Dipt.*, II, 326.—White Mts., N. H.

duplicatus ALDRICH, *Kans. Univ. Quart.*, II, 18, pl. I, f. 21; II, 157, note on hypopygium.—Wash. Also common in N. Idaho.

enigma MELANDER and BRUES, *Biolog. Bull.*, I, 139, figs.—North Park, Col., 9,000 ft.

eudactylus LOEW, *Neue Beitr.*, VIII, 16; *Mon. N. A. Dipt.*, II, 46.—N. Y., Mass.

ALDRICH, *Kans. Univ. Quart.*, II, 11, pl. I, f. 2 (but the fig. is incorrect).

—Kans. N. J.—Smith Cat.

var. *tonsus* LOEW, *Neue Beitr.*, VIII, 16; *Mon. N. A. Dipt.*, II, 47.—D. C. (Described as a distinct species; I place it here from examination of type).

N. J.—Smith Cat.; Mass.—M. and B.

exclusus WALKER, *List*, III, 663.—Martin Falls, Canada. (Unrecognizable.)

festinans ZETTERSTEDT, see *rupestris*.

finitus WALKER, *List*, III, 662.—N. Y. (Unrecognizable.)

flagellitenens WHEELER, *Psyche*, May, 1890, 339.—Milwaukee Co., Wis.

ALDRICH, *Kans. Univ. Quart.*, II, 13, pl. I, f. 11.—S. D., Col. Ill.—M. and B.

fulvipes LOEW, *Cent.*, II, 61; *Mon. N. A. Dipt.*, II, 61.—Ill.; White Mts., N. H. N. Y.—O. S.

funditor LOEW, *Neue Beitr.*, VIII, 22; *Mon. N. A. Dipt.*, II, 66.—Middle States.

ALDRICH, *Kans. Univ. Quart.*, II, 20, pl. I, f. 10.—N. J., Pa.

germanus WHEELER, *Psyche*, May, 1890, 341.—Milwaukee Co., Wis.

ALDRICH, *Kans. Univ. Quart.*, II, 21, oc. in S. D.; notes. Wyo.—M. and B.

gracilis ALDRICH, *Kans. Univ. Quart.*, II, 15.—Pa. Wis.—M. and B.

grandis ALDRICH, *Kans. Univ. Quart.*, II, 21, pl. I, f. 22.—Cal.

gratus LOEW, *Neue Beitr.*, VIII, 11; *Mon. N. A. Dipt.*, II, 29.—Trenton Falls, West Point, Palisades, etc., in N. Y.

ALDRICH, *Kans. Univ. Quart.*, II, 7, oc. in White Mts., N. H., and notes.

III., Wis.—M. and B.; N. J.—Smith Cat.

grønlandicus ZETTERSTEDT, *Dipt. Scand.*, II, 528.—Greenland.

STAEGER, *Græn. Antliater*, 358.

HOLMGREN, *Ins. Nordgræn.*, 100.

[*guttula* WIEDEMANN is South American; see LOEW, *Mon. N. A. Dipt.*, II, 237.]

hastatus LOEW, *Mon. N. A. Dipt.*, II, 59.—Sitka.

ALDRICH, *Kans. Univ. Quart.*, II, 13, oc. on Mt. Hood, Ore., and notes.

hebes WALKER, List, III, 213.—U. S. (Unrecognizable.)

heteroneurus MACQUART, see *Pelastoneurus*.

henshawi WHEELER, see *pugil*.

idahoensis ALDRICH, Kans. Univ. Quart., II, 154 (*Hygroceleuthus*).—Moscow, Idaho.

MELANDER and BRUES, Biolog. Bull., I, 133, figs. (id.)

incisuralis LOEW, Neue Beitr., VIII, 25; Mon. N. A. Dipt., II, 74.—Trenton Falls, N. Y. N. J.—Smith Cat.; Montreal—Chagnon.

LOEW, Cent., VII, 80 (*platyprosopus*).—Huds. B. Terr. [From type.]

incongruus WHEELER, Psyche, May, 1890, 338.—Milwaukee Co., Wis.

ineptus WALKER, Dipt. Saund., 214.—U. S. (Unrecognizable.)

intentus MELANDER and BRUES, Biolog. Bull., I, 137, figs.—Chicago.

irrasus WALKER, see *Pelastoneurus latus*.

johnsoni ALDRICH, Kans. Univ. Quart., II, 7.—N. J.

kansensis ALDRICH, Kans. Univ. Quart., II, 8.—Kans.

lamellicornis THOMSON, Eugenes Resa, 511.—Cal.

OSTEN SACKEN, West. Dipt., 313, notes (*Hygroceleuthus*).

ALDRICH, Kans. Univ. Quart., II, 25, note (id.).

lamellipes WALKER, List, III, 660.—Martin Falls, Canada. (Unrecognizable.)

laticornis LOEW, Neue Beitr., VIII, 12; Mon. N. A. Dipt., II, 29.—Conn.

ALDRICH, Kans. Univ. Quart., II, 7.

Fla.—Johnson; Montreal—Chagnon; Wis., Wyo.—M. and B.

latipes LOEW, Neue Beitr., VIII, 5 (*Hygroceleuthus*); Mon. N. A. Dipt., II, 17 (id.).—Red R. of the North.

ALDRICH, Kans. Univ. Quart., II, 24, pl. I, f. 26 (id.); op. cit., p. 155, note.

—S. D., Wyo., Conn.; Wis.

WHEELER, Proc. Cal. Acad. Sci., II, 2 (id.).—Wis., Ill.

MELANDER, and BRUES, Biolog. Bull., I, 128, figs. (id.).

lobatus LOEW, Neue Beitr., VIII, 24; Mon. N. A. Dipt., II, 72.—English R., Canada.

ALDRICH, Kans. Univ. Quart., II, 16, pl. I, f. 20.—S. D., Mich.

COQUILLET, Proc. Wash. Acad. Sci., II, 425, oc. at Kukak Bay, Alaska.

N. J.—Smith Cat.; Wis.—M. and B.

longimanus LOEW, Neue Beitr., VIII, 14; Mon. N. A. Dipt., II, 38.—English R., Canada; West Point, N. Y.

ALDRICH, Kans. Univ. Quart., II, 10, oc. in N. H., S. D.; note.

COQUILLET, Proc. Wash. Acad. Sci., II, 425, oc. in Alaska, several places.

White Mts. N. H.—Slosson; Wis., Mass.—M. and B.

longipennis LOEW, Neue Beitr., VIII, 21; Mon. N. A. Dipt., II, 57.—D. C., Chicago.

ALDRICH, Kans. Univ. Quart., II, 13, pl. I, f. 8.—N. J. to Ga. and Kans.

Fla.—Johnson; Vancouver Id.—M. and B.

luteipennis LOEW, Neue Beitr., VIII, 18; Mon. N. A. Dipt., II, 51.—D. C.

Ill.—O. S. Cat.; Vancouver Id.—M. and B.

maculipes WALKER, see *Pelastoneurus*.

marginatus ALDRICH, Kans. Univ. Quart., II, 17.—Conn.

MELANDER and BRUES, Biol. Bull., I, 135, notes.—Mass., N. J.

melanocerus LOEW, Cent., V, 86; Mon. N. A. Dipt., II, 330.—Canada.

Mass.—M. and B.

metatarsalis THOMSON, see *Hercostomus*.

misellus MELANDER, Canad. Ent., XXXII, 136, fig. 11.—Natrona Co. and Little Wind R., Wyo.

- myosota** OSTEN SACKEN, *Biologia*, Dipt., I, 213.—N. Sonora, Mex.
Cal.—M. and B.; North Idaho—Aldrich.
- nudus** LOEW, *Mon. N. A. Dipt.*, II, 41.—Ft. Resolution, Huds. B. Terr.
- obcordatus** ALDRICH, *Kans. Univ. Quart.*, II, 14, pl. I, f. 24.—Wyo., Col. Common in Idaho.
- obscurus** SAY, see *Gymnopternus*.
- occidentalis** ALDRICH, *Kans. Univ. Quart.*, II, 19, pl. I, f. 18.—Wash. Ida., Vancouver Id.—M. and B.
- ovatus** LOEW, *Neue Beitr.*, VIII, 13; *Mon. N. A. Dipt.*, II, 35.—Middle States. Ill.—O. S. Cat.
- pachynemus** LOEW, *Neue Beitr.*, VIII, 13; *Mon. N. A. Dipt.*, II, 35.—Middle States; Ill.
ALDRICH, *Kans. Univ. Quart.*, II, 9, pl. I, f. 12.—S. D. Mass.—M. and B.
- palæstricus** LOEW, *Cent.*, v, 84; *Mon. N. A. Dipt.*, II, 328.—White Mts., N. H.
ALDRICH, *Kans. Univ. Quart.*, II, 10, pl. I, f. 3.—N. J.
Ill.—M. and B.; Axton, N. Y.—M. and H.
- paluster** MELANDER and BRUES, *Biolog. Bull.*, I, 136, figs.—Monterey Bay, Cal.
- pantomimus** MELANDER and BRUES, *Biolog. Bull.*, I, 142, figs.—New Bedford, Mass.
- partitus** MELANDER and BRUES, *Biolog. Bull.*, I, 135, fig.—North Park, Col.
- pernix** MELANDER and BRUES, *Biolog. Bull.*, I, 141, fig.—Corfield, on Vancouver Id.
- platyprosopus**, see *incisuralis*.
- plumipes** SCOPOLI, *Entomol. Carniolica*, 334, 1763 (*Musca*).—Europe.
FALLÉN, *Dolichopodes*, II (*pennitarsis*).
STANNIUS, *Isis*, 63, 1831 (*id.*).
ZETTERSTEDT, *Dipt. Scand.*, II, 546 (*wahlbergi*).
SCHINER, *Fauna Austr.*, I, 217.
LOEW, *Mon. N. A. Dipt.*, II, 60.—Europe; Sitka and Quebec.
ALDRICH, *Kans. Univ. Quart.*, II, 13, oc. in S. D. and Col.
MELANDER and BRUES, *Biolog. Bull.*, I, 127, f. 3 (*Hygroceleuthus*).—Col., Vancouver Id.
COQUILLETT, *Proc. Wash. Acad. Sci.*, II, 423, oc. in Alaska, several places.
For the courtship of this species, see Dahl, *Zoolog. Anzeiger*, Apr., 1889, quoted by Wheeler, *Proc. Wis. Nat. Hist. Soc.*, Apr., 1889, and by Aldrich, *Amer. Nat.*, 1894, 36.
Beulah, N. M.—Skinner; Province of Quebec—Fyles.
- plumitarsis** FALLÉN, *Dolichopodes*, 10, 1823.—Europe.
ZETTERSTEDT, *Dipt. Scand.*, II, 556.
SCHINER, *Fauna Austr.*, I, 216.
COQUILLETT, *Proc. Wash. Acad. Sci.*, II, 425, oc. at Kukak Bay and Popof Id., Alaska.
- plumosus** ALDRICH, *Kans. Univ. Quart.*, II, 18, pl. I, f. 16.—Wash.
- pollex** OSTEN SACKEN, *West. Dipt.*, 314.—Webber L., Cal.
- præustus** LOEW, *Cent.*, II, 62; *Mon. N. A. Dipt.*, II, 68.—Ill.
- pugil** LOEW, *Cent.*, VII, 77.—Canada. Mass.—O. S. Cat.
WHEELER, *Psyche*, May, 1890, 340 (*henshawii*).—Mass.
MELANDER and BRUES, *Biolog. Bull.*, I, 134, notes (*id.*).
- pulcher** WALKER, *Dipt. Saund.*, 215.—U. S.
LOEW, *Mon. N. A. Dipt.*, II, 21 and 309, quotes desc., etc.

pulchrimanus BIGOT, Bull. Soc. Ent. France, 1888, p. xxx (*Spatichira pulchrimana*); Annales, 1890, 292 (*Spathichira pulchrimanus*).—Rocky Mts., N. A.

ALDRICH, Kans. Univ. Quart., II, 23; genus untenable and species unrecognizable.

quadrilamellatus LOEW, Cent., v, 83; Mon. N. A. Dipt., II, 331.—N. J.

ramifer LOEW, Neue Beitr., VIII, 19; Mon. N. A. Dipt., II, 52.—L. Winnipeg; Nebr.; New Rochelle, N. Y.

ALDRICH, Kans. Univ. Quart., II, 12.—Mich. to Kans. and Mont.

Montreal—Chagnon; Ill., Tex., Wyo.—M. and B.; Ida.—J. M. A.

reflectus ALDRICH, Kans. Univ. Quart., II, 12.—Philadelphia.

remipes WAHLBERG, Act. Reg. Soc. Sci. Holmiæ, 1838.—Sweden.

ZETTERSTEDT, Dipt. Scand., II, 518.

A male has been sent me from Olympia, Wash., by Professor Kincaid.

remotus WALKER, List, III, 666.—N. A. (Unrecognizable.)

renidescens MELANDER and BRUES, Biolog. Bull., I, 143, figs.—North Park, Col. S. D., Idaho—J. M. A.

ruficornis LOEW, Neue Beitr., VIII, 21; Mon. N. A. Dipt., I, 63.—Middle States.

rupestris HALIDAY, Entomologist's Magazine, I, 164.—England.

ZETTERSTEDT, Ins. Lapp., 708 (*festinans*); Dipt. Scand., II, 507 (id.); op. cit., 510 (*fuscimanus*).

SCHINER, Fauna Austr., I, 222, syn. and desc.

COQUILLETT, Proc. Wash. Acad. Sci., II, 424, oc. at Kukak Bay and Popof Id., Alaska (*festinans*).

sarotes LOEW, Cent., VII, 81.—Ill. Wis.—M. and B.

Note.—Looking at the single male type, I decided it to be the same as *longipennis*; on looking at my specimens after reaching home, I see that there is an easy mark of distinction in the fore feet, *sarotes* having the third joint much larger, broader and whiter. This illustrates what may be done by examining types.

scapularis LOEW, Neue Beitr., VIII, 22; Mon. N. A. Dipt., II, 64.—D. C.; Ill.

ALDRICH, Kans. Univ. Quart., II, 20.—Kans., Pa., Ohio, Tenn.

Wis.—M. and B.

scoparius LOEW, Mon. N. A. Dipt., II, 70.—Maine, Mass.

WHEELER, Psyche, May, 1890, 339, male lamellæ.

ALDRICH, Kans. Univ. Quart., II, 18, pl. I, f. 9.—N. J., Pa., Mass.

White Mts., N. H.—Slosson; Montreal—Chagnon; Ill., Wis.—M. and B.; Axton, N. Y.—M. and H.

separatus WALKER, List, III, 665.—Martin Falls, Canada. (Unrecognizable.)

sequax WALKER, see *Campsicnemus*.

setifer LOEW, Neue Beitr., VIII, 12; Mon. N. A. Dipt., II, 30.—D. C.; Trenton Falls, N. Y. Newport, R. I.—O. S. Cat.

ALDRICH, Kans. Univ. Quart., II, 156, oc. in Wis.; note.

N. J.—Smith Cat.; Mass.—M. and B.; Montreal—Chagnon.

setosus LOEW, Cent., II, 63; Mon. N. A. Dipt., II, 73.—Mass.

Vancouver Id.—M. and B.

sexarticulatus LOEW, Mon. N. A. Dipt., II, 62.—D. C. Ill., La.—M. and B.

sincerus MELANDER, Canad. Ent., XXXII, 136, figs.—Price Co., Wis.

soccatus WALKER, List, III, 666.—Martin Falls, Canada. (Unrecognizable.)

socius LOEW, see *brevimanus*.

sphæristes BRUES, Ent. News, XII, 44, fig.—Austin, Tex.

splendidulus LOEW, see *splendidus*.

splendidus LOEW, Neue Beitr., VIII, 21; Mon. N. A. Dipt., II, 44.—Ill.

- LOEW, Cent., v, 82; Mon. N. A. Dipt., II, 327 (both *splendidulus*).—White Mts., N. H. [From types.] Ont., Ill.—M. and B.
- stenhammari** ZETTERSTEDT, Ins. Lapp., 710 (*annulipes*, preoc.); Dipt. Scand., II, 521.—N. Sweden and Lapland.
- OSTEN SACKEN, Cat., 108, oc. at Sloop Harbor, Labrador.
- COQUILLET, Proc. Wash. Acad. Sci., II, 424, oc. in Alaska, several places.
- subciliatus** LOEW, Mon. N. A. Dipt., II, 43.—Ft. Resolution, Huds. B. Terr.
- tener** LOEW, Neue Beitr., VIII, 17; Mon. N. A. Dipt., II, 49.—Chicago. Wis.—M. and B.
- tenuipes** ALDRICH, Kans. Univ. Quart., II, 155; Amer. Naturalist, 1894, 35, courtship (*n. sp.*).—Moscow, Ida. Cal.—M. and B.
- terminalis** LOEW, Cent., VII, 78.—Genesee, N. Y. Wis.—M. and B.
- tetricus** LOEW, Mon. N. A. Dipt., I, 33.—Ft. Resolution, Huds. B. Terr.
- tonsus** LOEW, see *cadactylus*.
- variabilis** LOEW, Neue Beitr., VIII, 17; Mon. N. A. Dipt., II, 50.—N. Y. ALDRICH, Kans. Univ. Quart., II, 11, oc. in Mass., Pa., N. J., S. D. Ill., Wis.—M. and B.; Montreal—Chagnon; White Mts., N. H.—Slosson.
- varipes** COQUILLET, Proc. Wash. Acad. Sci., II, 425.—Popof Id., Alaska. Craig's Mt., Ida.—J. M. A.
- varius** WALKER, see *Pelastoneurus pictipennis*.
- vigilans** ALDRICH, Kans. Univ. Quart., II, 13, pl. I, f. 15.—Kans.
- vittatus** LOEW, Neue Beitr., VIII, 20; Mon. N. A. Dipt., II, 55.—Chicago. N. Y.—O. S. Cat.; S. D.—Aldrich; Wis.—M. and B.; N. J.—Smith Cat.; Montreal—Chagnon.
- wheeleri** MELANDER and BRUES, Biolog. Bull., I, 126, figs. (*Hygrocluthus*).—Wood's Hole, Mass.
- willistonii** ALDRICH, Kans. Univ. Quart., II, 22, pl. I, f. 23.—Lawrence, Kans.
- xanthocnemus** LOEW, Mon. N. A. Dipt., II, 21.—Sitka. COQUILLET, Proc. Wash. Acad. Sci., II, 424, oc. in Alaska, several places.

GYMNOPTERNUS.

- LOEW, Neue Beitr., v, 10, 1857; VIII, 26, 1861; Mon. N. A. Dipt., II, 75, 1864.
- SCHINER, Fauna Austr., I, 205, 1862.
- albiceps** LOEW, Neue Beitr., VIII, 30; Mon. N. A. Dipt., II, 85.—Middle States.
- barbatulus** LOEW, Neue Beitr., VIII, 29; Mon. N. A. Dipt., II, 82.—Middle States. N. J.—Smith Cat.
- chalcocrus** LOEW, Mon. N. A. Dipt., II, 335.—D. C., N. Y.
- coxalis** LOEW, Cent., v, 87; Mon. N. A. Dipt., II, 335.—N. Y.
- crassicauda** LOEW, Neue Beitr., VIII, 35; Mon. N. A. Dipt., II, 95.—N. Y.
- debilis** LOEW, Neue Beitr., VIII, 35; Mon. N. A. Dipt., II, 95.—Pa. N. J.—Smith Cat.; Fla.—Johnson.
- despicatus** LOEW, Neue Beitr., VIII, 33; Mon. N. A. Dipt., II, 90.—Middle States.
- difficilis** LOEW, Neue Beitr., VIII, 33; Mon. N. A. Dipt., II, 91.—N. Y.
- exiguus** LOEW, Mon. N. A. Dipt., II, 337.—Ill.
- exilis** LOEW, Neue Beitr., VIII, 30; Mon. N. A. Dipt., II, 84.—Pa. N. J.—Smith Cat.
- fimbriatus** LOEW, Neue Beitr., VIII, 32; Mon. N. A. Dipt., II, 89.—Md.
- flavus** LOEW, Neue Beitr., VIII, 28; Mon. N. A. Dipt., II, 80.—Pa. N. J.—Smith Cat.
- frequens** LOEW, Neue Beitr., VIII, 32; Mon. N. A. Dipt., II, 88.—Middle States. White Mts., N. H.—Slosson.
- humilis** LOEW, Mon. N. A. Dipt., II, 336.—N. Y., Ill.

laevigatus LOEW, Neue Beitr., VIII, 31; Mon. N. A. Dipt., II, 87.—Middle States.
lunifer LOEW, Neue Beitr., VIII, 32; Mon. N. A. Dipt., II, 89.—N. Y.

N. J.—Smith Cat.

meniscus LOEW, Cent., v, 88; Mon. N. A. Dipt., II, 336.—D. C.

minutus LOEW, Neue Beitr., VIII, 35; Mon. N. A. Dipt., II, 96.—Middle States.

mirificus MELANDER, Canad. Ent., XXXII, 137, fig. 13.—Mass.

nigribarba LOEW, Neue Beitr., VIII, 33; Mon. N. A. Dipt., II, 91.—Pa.

obscurus SAY, Jour. Acad. Sci. Phil., III, 85; Compl. Works, II, 75 (*Dolichopus*).
 —Pa.

WIEDEMANN, Auss. Zw., II, 232 (id.).

LOEW, Mon. N. A. Dipt., II, 290, 296, quotes Say and Wiedemann.

opacus LOEW, Neue Beitr., VIII, 34; Mon. N. A. Dipt., II, 93.—N. Y.

parvicornis LOEW, Neue Beitr., VIII, 34; Mon. N. A. Dipt., II, 92.—Middle States.

phyllorhynchus LOEW, Cent., VII, 82.—L. George, N. Y.

White Mts., N. H.—Slosson.

pænitens WHEELER, see *Hercostomus unicolor*.

politus LOEW, Neue Beitr., VIII, 34; Mon. N. A. Dipt., II, 94 and 334.—N. Y.

pusillus LOEW, Mon. N. A. Dipt., II, 334.—Ill.

ruficornis ALDRICH, Trans. Ent. Soc. Lond., 1896, 309.—St. Vincent, W. I.

scotias LOEW, Neue Beitr., VIII, 29; Mon. N. A. Dipt., II, 81.—L. Winnipeg.

N. J.—Smith Cat.; White Mts., N. H.—Slosson.

spectabilis LOEW, Neue Beitr., VIII, 30; Mon. N. A. Dipt., II, 85.—N. Y.

N. J.—Smith Cat.

subdilatus LOEW, Neue Beitr., VIII, 31; Mon. N. A. Dipt., II, 86.—Middle States.
 N. J.—Smith Cat.

subulatus LOEW, Neue Beitr., VIII, 29; Mon. N. A. Dipt., II, 80.—Trenton Falls,
 N. Y.

tristis LOEW, Mon. N. A. Dipt., II, 83.—Sitka.

ventralis LOEW, Neue Beitr., VIII, 36; Mon. N. A. Dipt., II, 97.—N. Y.

D. C.—O. S. Cat.; N. J.—Smith Cat.

HERCOSTOMUS.

LOEW, Neue Beitr., v, 9, 1857; VIII, 42, 1861; Mon. N. A. Dipt., II, 116,
 1864.

WHEELER, Proc. Cal. Acad. Sci., II, 8, 1899, table of species.

MELANDER, Canad. Ent., XXXII, 138, table of species, 1900.

Note.—This genus is not well-defined, and serves as a catch-all for
 aberrant forms near *Gymnopternus*.

aurifer THOMSON, Eugen. Resa, 512 (*Dolichopus*).—Cal.

anarmostus MELANDER, Canad. Ent., XXXII, 139, f. 3.—Chicago.

flavipes ALDRICH, Biologia, Dipt., I, 336, pl. vi, f. 17.—Guerrero, Mex.

impudicus WHEELER, Proc. Cal. Acad. Sci., II, 10, pl. I, f. 11-13.—Monterey, Cal.

latipes ALDRICH, Trans. Ent. Soc. Lond., 1896, 311, pl. XII, f. 111.—St. Vincent,
 W. I. Grenada—Aldrich.

metatarsalis THOMSON, Eugen. Resa, 512 (*Dolichopus*).—Cal.

WHEELER, Proc. Cal. Acad. Sci., II, 8, pl. I, f. 9, 10 (*procerus*).—Monterey,
 Cal. [J. M. A.]

procerus WHEELER, see *metatarsalis*.

unicolor LOEW, Mon. N. A. Dipt., II, 117.—Ft. Resolution, Huds. B. Terr.

WHEELER, Psyche, June, 1890, 356 (*Gymnopternus panitens*).—Wis.

MIK, Wien. Ent. Zeit., 1894, 4, gen. ref. of *panitens*.

MELANDER, Canad. Ent., XXXII, 138, syn.

Seattle—J. M. A.

vetitus MELANDER, Canad. Ent., XXXII, 138, f. 1, 2.—Clementon, N. J.

PARACLIUS.

LOEW, Mon. N. A. Dipt., II, 97, 1864.

WHEELER, Proc. Cal. Acad. Sci., II, 18, 1899, table of species.

ALDRICH, Biologia, Dipt., I, 337, 1902, table of Mex. species; Kans. Univ. Sci. Bull., I, 47, 1902, table of species.

Note.—The genus *Paracleius*, BIGOT, Annales, 1859, 215, is not the same.

abdominalis ALDRICH, Kans. Univ. Sci. Bull., I, 78.—Grenada, W. I.

albonotatus LOEW, Mon. N. A. Dipt., II, 102.—New Orleans.

Grenada, W. I., and Tabasco, Mex.—Aldrich.

alternans LOEW, Cent., v, 91 (*Pelastoncureus*); Mon. N. A. Dipt., II, 339 (id.).—New Rochelle, N. Y. (Gen. ref. from type—J. M. A.)

arcuatus LOEW, Neue Beitr., VIII, 39; Mon. N. A. Dipt., II, 101.—Cuba.

ALDRICH, Kans. Univ. Sci. Bull., I, 80, oc. in Grenada and Jamaica, and notes.

bellus ALDRICH, Kans. Univ. Sci. Bull., I, 81.—Grenada, W. I.

claviculatus LOEW, Cent., VII, 83.—New Rochelle, N. Y.

Grenada—Aldrich.

discifer ALDRICH, Kans. Univ. Sci. Bull., I, 80.—Grenada.

femoratus ALDRICH, Biologia, Dipt., I, 340.—Vera Cruz, Teapa and Frontera, Mex.

filifer ALDRICH, Trans. Ent. Soc. Lond., 1896, 314, pl. XI, f. 102.—St. Vincent, W. I.

WHEELER, Proc. Cal. Acad. Sci., II, 19, notes, and oc. in Fla.

Grenada—Aldrich; Porto Rico—Coquillett.

fuscicornis ALDRICH, Kans. Univ. Sci. Bull., I, 79.—Grenada, W. I.

humeralis ALDRICH, Biologia, Dipt., I, 340, pl. VI, f. 10.—Vera Cruz, Mex.

hybridus MELANDER, Canad. Ent., XXXII, 141, f. 4, 5.—Wood's Hole, Mass.

nigripes ALDRICH, Kans. Univ. Sci. Bull., I, 78.—Grenada, W. I.

propinquus WHEELER, Proc. Cal. Acad. Sci., II, 18, pl. I, f. 22–24.—Charlotte Harbor and Ormond, Fla.

pumilio LOEW, Cent., x, 63.—Texas.

quadrinotatus ALDRICH, Kans. Univ. Sci. Bull., I, 81.—Grenada, W. I.

venustus ALDRICH, Biologia, Dipt., I, 340, pl. VI, f. 11.—Teapa, Mex.

Grenada—Aldrich.

TACHYTRECHUS.

LOEW, Neue Beitr., v, 14, 1857; VIII, 40, 1861; Mon. N. A. Dipt., II, 109, 1864.

STANNIUS, Isis, 1831, 261 (*Ammobates*, preoc.).

MIK, Verh. Zool.-Bot. Ges., 1878 (*Macellocerus*, in part).

angustipennis LOEW, Cent., II, 64; Mon. N. A. Dipt., II, 113.—D. C.

OSTEN SACKEN, West Dipt., 315, oc. in Cal., Sonoma Co. and Summit Station.

auratus ALDRICH, Trans. Amer. Ent. Soc., XXIII, 83 (*Macellocerus*).—Moscow, Ida.

binodatus LOEW, Cent., VII, 84.—Saratoga, N. Y.

JOHNSON, Ent. News, XIII, 168, oc. in Morris Co., N. J.

Battle Creek, Mich.—Aldrich.

floridensis ALDRICH, Trans. Amer. Ent. Soc., XXIII, 82.—Fla.

mæchus LOEW, Neue Beitr., VIII, 40; Mon. N. A. Dipt., II, 110.—Trenton Falls, N. Y.

- olympiæ** ALDRICH, Trans. Amer. Ent. Soc., xxiii, 83 (*Macellocerus*).—Olympia, Wash. Boise, Ida.—J. M. A.
- protervus** MELANDER, Canad. Ent., xxxii, 143, f. 6, 7.—Clementon and Del. Water Gap, N. J.
- sanus** OSTEN SACKEN, West. Dipt., 316.—Webber L., Cal. Craig's Mt., Ida.—J. M. A.
- volitans** MELANDER, Canad. Ent., xxxii, 143, f. 8.—Lusk, Wyo.
- vorax** LOEW, Neue Beitr., viii, 41; Mon. N. A. Dipt., ii, 112.—D. C. N. J.—Smith Cat.; Mich., Col.—J. M. A.

POLYMEDON.

- OSTEN SACKEN, West. Dipt., 317, 1877.
- WILLISTON, Synops. Fam. and Gen., 47, 1886.
- ALDRICH, Trans. Ent. Soc. Lond., 1896, 318, amended; Biologia, Dipt., i, 333, 1902, table of species.
- argentatus** ALDRICH, Biologia, Dipt., i, 334, pl. vi, f. 7.—Cuernavaca, Mex.
- castus** WHEELER, Proc. Cal. Acad. Sci., ii, 6, pl. i, f. 8.—Grand Cañon, Ariz.
- ALDRICH, Biologia, Dipt., i, 333, footnote.
- flabellifer** OSTEN SACKEN, West. Dipt., 317.—Sonoma Co., Cal.; on stones in stream.
- Julietta, Idaho—J. M. A.
- nimius** ALDRICH, Biologia, Dipt., i, 334, pl. vi, f. 8, 9.—Guerrero, Mex., and Hagerman, Ida., about waterfalls.
- superbus** ALDRICH, Trans. Ent. Soc. Lond., 1896, 318-320, pl. xi, f. 103 and pl. xii, f. 113, 118, 119.—St. Vincent, W. I.; on stones in stream.
- triangularis** ALDRICH, Biologia, Dipt., i, 335.—Cuernavaca, Mex.

SARCIONUS.

- ALDRICH, Biologia, Dipt., i, 341, 1902; Kans. Univ. Sci. Bull., i, 47, 1902.
- flavicoxa** ALDRICH, Biologia, Dipt., i, 341, pl. vi, f. 15.—Teapa, Mex. (on the plate as *Pacilobothrus*).
- lineatus** ALDRICH, Trans. Ent. Soc., Lond., 1896, 312 (*Pelastoneurus*); Biologia, Dipt., i, 341, gen. ref. and oc. in Teapa, Mex.; Kans. Univ. Sci. Bull., i, 82, oc. in Grenada, and notes.—St. Vincent, W. I.

PELASTONEURUS.

- LOEW, Neue Beitr., viii, 36, 1861; Mon. N. A. Dipt., ii, 103, 1864.
- ALDRICH, Kans. Univ. Quart., ii, 152, 1893 (*Metapelastoneurus*, in part); Ent. News, xi, 532, syn.
- WHEELER, Proc. Cal. Acad. Sci., ii, 11, 1899, table of species.
- ALDRICH, Biologia, Dipt., i, 336, 1902, table of Mex. species; Kans. Univ. Sci. Bull., i, 47, 1902, table of species.
- abbreviatus** LOEW, Cent., v, 89; Mon. N. A. Dipt., ii, 338.—New Rochelle, N. Y. St. Augustine, Fla.—Johnson.
- alternans** LOEW, see *Paraclius*.
- argentifer** ALDRICH, Trans. Ent. Soc. Lond., 1896, 313.—St. Vincent, W. I. Mexico, several places, and Grenada, W. I.—Aldrich.
- bifrons** WALKER, Dipt. Saund., 212 (*Dolichopus*).—U. S. (Unrecognizable.)
- bigeminatus** ALDRICH, Biologia, Dipt., i, 338, pl. vi, f. 13.—Vera Cruz, Mex.
- cognatus** LOEW, Mon. N. A. Dipt., ii, 109.—Middle States. Texas—O. S. Cat. WHEELER, Proc. Cal. Acad. Sci., ii, 12, oc. at Chicago.
- ALDRICH, Biologia, Dipt., i, 339, male.—Vera Cruz, Mex. St. Augustine, Fla.—Johnson.

- cyaneus** WHEELER, Proc. Cal. Acad. Sci., II, 17, pl. I, f. 16-18.—Monterey, Cal. and Lusk, Wyo.
- dissimilipes** WHEELER, Proc. Cal. Acad. Sci., II, 17.—Monterey, Cal.
- fasciatus** ROEDER, Stett. Ent. Zeit., 1885, 34.—Porto Rico.
- floridanus** WHEELER, Proc. Cal. Acad. Sci., II, 13, pl. II, f. 26.—St. Augustine, Fla.
- furcifer** LOEW, Cent., x, 64.—Texas.
- hamatus** ALDRICH, Biologia, Dipt., I, 338, pl. VI, f. 12.—Mexico City.
- heteroneurus** MACQUART, Dipt. Exot., Suppl., IV, 128, pl. XII, f. 10 (*Dolichopus*).—N. A.
- kansensis** ALDRICH, Kans. Univ. Quart., II, 153, 1893 (*Metapelastoneurus*).—Lawrence, Kans.; Milbank, S. D.—J. M. A.
- lætus** LOEW, Neue Beitr., VIII, 38; Mon. N. A. Dipt., II, 106.—Ga., D. C.
? WALKER, List, III, 667 (*Dolichopus irrasus*).—Fla. [J. M. A.]
- lamellatus** LOEW, Cent., v, 90; Mon. N. A. Dipt., II, 338.—N. Y.
- longicauda** LOEW, Neue Beitr., VIII, 37; Mon. N. A. Dipt., II, 104.—N. Y.
- lugubris** LOEW, Neue Beitr., VIII, 38; Mon. N. A. Dipt., II, 105.—Trenton Falls, N. Y.
WHEELER, Proc. Cal. Acad. Sci., II, pl. II, f. 28.—Wis., Ill., Ind.
N. J.—Smith Cat.; Vera Cruz, Mex.—Aldrich.
- maculipes** WALKER, Dipt. Saund., 214 (*Dolichopus*).—U. S.
- mexicanus** BIGOT, Bull. Soc. Ent. France, Feb. 22, 1888, p. xxx; Annales, 1890, 294 (*Pacilobothrus*).—Mex. (Unrecognizable.)
- neglectus** WHEELER, Proc. Cal. Acad. Sci., II, 12, pl. I, f. 14.—Chicago and Milwaukee.
Notc.—The specimens were males, not females (Wheeler in litt.).
- occidentalis** WHEELER, Proc. Cal. Acad. Sci., II, 13, pl. I, f. 20.—Pacific Grove, Cal.
- pictipennis** WHEELER, Proc. Cal. Acad. Sci., II, 14, pl. I, f. 19 and pl. II, f. 25.—St. Augustine and Gotha, Fla.
? WALKER, Dipt. Saund., 215 (*Dolichopus varius*).—U. S. [J. M. A.]
- ? **pilosicornis** WALKER, List, III, 653 (*Porphyrops*).—Martin Falls, Canada. (Unrecognizable.)
- punctipennis** SAY, Jour. Acad. Sci. Phil., VI, 170; Compl. Works, II, 362 (*Medeterus*).—Mex.
ALDRICH, Biologia, Dipt., I, 339, pl. VI, f. 14 (on the plate *P. variegatus*).—Orizaba, Mex.
- unguiculatus** ALDRICH, Trans. Ent. Soc. Lond., 1896, 310, pl. XI, f. 101 and pl. XII, f. 116 (*Pacilobothrus*).—St. Vincent, W. I.
Vera Cruz, Mex.—Aldrich.
- vagans** LOEW, Neue Beitr., VIII, 39; Mon. N. A. Dipt., II, 107.—Middle States.
WHEELER, Proc. Cal. Acad. Sci., II, 15, pl. I, f. 15, oc. in Wis., Ill., Ind., N. M., and Wyo. N. J.—Smith Cat.; Orizaba, Mex.—Aldrich.
- wheeleri** MELANDER, Canad. Ent., XXXII, 140, f. 15.—Austin, Texas.

LEPTOCORYPHA.

- ALDRICH, Trans. Ent. Soc. London, 1896, 315.
- pavo** ALDRICH, op. cit., pl. XII, f. 112.—St. Vincent, W. I.

ORTHOCHILE.

- LATREILLE, Gen. Crust. et Ins., IV, 289, 1809.

- ? *derempta* WALKER, List, III, 667.—N. A. See Osten Sacken, Cat., 243, note 187. The species does not belong to this genus, but not even the genus can be determined from the description.

EMPIDIDÆ.

- BIGOT, Annales, 1889, 114, table of genera of the world.
 COQUILLETT, Revis. Emp., in Proc. U. S. N. M., XVIII, 1896 (separates in 1895), 387-440, has a table of genera, p. 389.
 MELANDER, Monograph Empididæ, in Trans. Amer. Ent. Soc., XXVIII, 1902, 195-367, 5 plates, has a table of genera, p. 201.
 COQUILLETT, Proc. Wash. Ent. Soc., v, 245-272, types of genera, table, notes, etc. Following my own convictions, and to some extent the advice of Mr. Melander, I have not adopted all the changes proposed in this paper.

PHONEUSTICA.

- LOEW, Cent., III, 35, 1863.
 MELANDER, Mon. Empid., I, 204, 1902, def. and table of species.
bimaculata LOEW, see *maculipennis*.
maculipennis WALKER, List, III, 507 (*Tachydromia*).—Martin Falls, Canada.
 LOEW, Cent., III, 35 (*bimaculata*).—Sitka. [Coq.]
 MELANDER, Mon. Empid., I, 204 (id.).—Brookings, S. D.
simplicior WHEELER and MELANDER, Biologia, Dipt., I, 375.—Chilpancingo in Guerrero, Mex.
 MELANDER, Mon. Empid., I, 205.—Guerrero and Vera Cruz, Mex.

STILPON.

- LOEW, Neue Beitr., VI, 34, 43, 1859.
 OSTEN SACKEN, Cat., 241, 1878, quotes desc.
 MELANDER, Mon. Empid., I, 205, 1902, def. and table of species; the latter revised on p. 339.
houghi MELANDER, see *Coloboncura*.
minuta MELANDER, Mon. Empid., I, 339.—Cloudcroft and Highrolls, N. M.
nigripes MELANDER, Mon. Empid., I, 339.—Alamogordo, Highrolls, and Cloudcroft, N. M.
pectiniger MELANDER, see *varipes*.
varipes LOEW, Cent., II, 58.—Pa.
 MELANDER, Mon. Empid., I, 205, f. 45 (*varipes* and *pectiniger*).—Milwaukee, Wis., and New Bedford, Mass. [Melander, in litt.]

DRAPETIS.

- MEIGEN, Syst. Besch., III, 91, 1822.
 SCHINER, Fauna Austr., I, 1862.
 WILLISTON, Trans. Ent. Soc. Lond., 1896, 441, table of St. Vincent species.
 COQUILLETT, Proc. U. S. N. M., XXII, 251, correction of preceding.
 MELANDER, Mon. Empid., I, 206, 1902, def. and table of species.
apicis WILLISTON, Trans. Ent. Soc. Lond., 1896, 442, pl. XIV, f. 167.—St. Vincent, W. I.
 MELANDER, Mon. Empid., I, 209.
divergens LOEW, Cent., X, 62.—Texas.
 WILLISTON, Trans. Ent. Soc. Lond., 1896, 442, pl. XIV, f. 168 (*minuta*).—St. Vincent, W. I.

- MELANDER, Mon. Empid., 1, 210, f. 15 (*divergens* and *minuta*).—Ala., Ga., N. M. [Mel., *in litt.*]
- dividua** MELANDER, Mon. Empid., 1, 208, f. 16, 18, 23.—Moscow, Idaho.
- femoralis** WHEELER and MELANDER, Biologia, Dipt., 1, 376.—Vera Cruz and Tabasco, Mex.
- MELANDER, Mon. Empid., 1, 211, f. 13.
- flavida** WILLISTON, Trans. Ent. Soc. Lond., 1896, 308, pl. XI, f. 86.—St. Vincent, W. I.
- COQUILLET, Proc. U. S. N. M., XXII, 251, oc. in Porto Rico (*Tachydromia*).
- WHEELER and MELANDER, Biologia, Dipt., 1, 376, oc. in Orizaba and Vera Cruz, Mex.
- MELANDER, Mon. Empid., 1, 213.—Hayti.
- COQUILLET, Proc. Ent. Soc. Wash., v, 265, note.
- gilvipes** LOEW, Cent., x, 61.—Texas.
- WILLISTON, Trans. Ent. Soc. Lond., 1896, pl. iv, f. 85 (*xanthopodus*).—St. Vincent, W. I.
- MELANDER, Mon. Empid., 1, 212, 213, syn. on 340.—Galveston and Bosque Co., Texas.
- latipennis** MELANDER, Mon. Empid., 1, 209, f. 11, 19.—Lawrence, Kans.; Milwaukee, Wis.
- medetera** MELANDER, Mon. Empid., 1, 208, f. 22.—Ida., Wyo., Col., Ariz.
- COQUILLET, Proc. Ent. Soc. Wash., v, 265, note.
- minuta** WILLISTON, see *divergens*.
- nigra** MEIGEN, Syst. Besch., VI, 344.—Europe.
- WALKER, List, III, 511, oc. in N. A.—Martin Falls, Canada.
- MELANDER, Mon. Empid., 1, 208, f. 12, 17, 24.—Brookings, S. D.
- nitida** MELANDER, see *unipila*.
- pubescens** LOEW, Cent., II, 57.—N. Y.
- MELANDER, Mon. Empid., 1, 210, 340.
- septentrionalis** MELANDER, Mon. Empid., 1, 211.—Battle Creek, Mich.
- spectabilis** MELANDER, Mon. Empid., 1, 212, 340, f. 9, 20.—Wood's Hole and Horseneck Beach, Mass.; Bosque Co., Texas.
- unipila** LOEW, Cent., x, 60.—Texas.
- MELANDER, Mon. Empid., 1, 207, f. 10, 14, 21 (*nitida*); 339, syn.—Monterey Co., Cal.; Austin and Granite Mt., Texas.
- xanthopodus** WILLISTON, see *gilvipes*.

ELAPHROPEZA.

- MACQUART, Dipt. Nord France, 1, 1827; Hist. Nat. Dipt., 1, 359, 1834.
- SCHINER, Fauna Austr., 1, 94, 1862.
- MELANDER, Mon. Empid., 1, 213, 1902.
- montana** MELANDER, Mon. Emp., 1, 213, f. 7, 8.—Col.

PLATYPALPUS.

- MACQUART, Dipt. Nord France, 94, 1827; Hist. Nat. Dipt., 1, 351, 1834.
- SCHINER, Fauna Austr., 1, 87, 1862.
- OSTEN SACKEN, Cat., 241, note.
- COQUILLET, Revis. Empid., 438, table of species, 1895.
- MELANDER, Mon. Empid., 1, 214, 1902, def. and table of species.
- æqualis** LOEW, Cent., v, 75.—Ill.
- MELANDER, Mon. Emp., 1, 222.—Mass. to La., Ida. to Cal. and Mex.
- N. J.—Smith Cat.; White Mts., N. H.—Slosson. See *crassifemoris*.

alexippus WALKER, List, III, 510 (*Tachydromia*).—Martin Falls, Canada.

apicalis LOEW, Cent., v, 79.—Pa.

MELANDER, Mon. Empid., I, 218.—Wood's Hole, Mass. White Mts., N. H.—Slosson.

caligatus MELANDER, Mon. Empid., I, 216, f. 27, 35, 46.—Guerrero, Mex.

WHEELER and MELANDER, Biologia, Dipt., I, 375, had referred the same specimens to *trivialis* LW.

canus MELANDER, Mon. Empid., I, 220, f. 29, 40, 45.—Los Angeles Co., Cal.

crassifemoris FITCH, N. Y. Repts., I, 301, 1856 (*Oscinis*).—N. Y.

COQUILLETT, Rev. Empid., 438, gen. ref., from type.

MELANDER, Mon. Empid., I, 223, 342, *trivialis* and *aqualis* are probably the same.—Mass., Mich., Ida.

debilis LOEW, Cent., III, 37.—D. C.

discifer LOEW, Cent., III, 36.—D. C.

MELANDER, Mon. Empid., I, 222; note on type, 342.

diversipes COQUILLETT, Proc. Wash. Acad. Sci., II, 422.—Popof Id., Alaska.

MELANDER, Mon. Empid., I, 218.

flavirostris LOEW, Cent., v, 80.—White Mts., N. H.

COQUILLETT, Proc. Wash. Acad. Sci., II, 422.—Popof Id., Alaska.

MELANDER, Mon. Empid., I, 219; notes on type, 342.

gilvipes COQUILLETT, Proc. Wash. Acad. Sci., II, 422.—Popof Id., Alaska.

MELANDER, Mon. Empid., I, 224.

gravidus MELANDER, Mon. Empid., I, 221, f. 25, 42.—San Diego Co., Cal.

hastatus MELANDER, Mon. Empid., I, 222, f. 30.—Lawrence, Kans.; Craig's Mt., Ida.

hians MELANDER, Mon. Empid., I, 220, f. 32, 36, 37.—Col.

impexus MELANDER, Mon. Empid., I, 219.—Brookings, S. D.; Battle Creek, Mich.

incultus COQUILLETT, Rev. Empid., 439.—S. Cal.

MELANDER, Mon. Empid., I, 218.—Texas.

incurvus MELANDER, Mon. Empid., I, 221, f. 31, 33, 44.—Los Angeles Co. and San Diego Co., Cal.

inops MELANDER, Mon. Empid., I, 220.—Dubois and Hunter's Cr., Wyo.; Oxford, Idaho.

lætus LOEW, Cent., v, 81.—White Mts., N. H.

MELANDER, Mon. Empid., I, 219; note on type, 341.

lateralis LOEW, Cent., v, 78.—White Mts., N. H.

COQUILLETT, Proc. Wash. Acad. Sci., II, 421, oc. in Alaska, several places.

MELANDER, Mon. Empid., I, 222.

lupatus MELANDER, Mon. Empid., I, 340.—Cloudcroft, N. M.

mesogramma LOEW, Cent., III, 38.—D. C., N. Y.

MELANDER, Mon. Empid., I, 219.—Pa., Tenn. N. J.—Smith Cat.

monticola MELANDER, Mon. Empid., I, 217, f. 41.—Cameron Pass, Col.

pachynema LOEW, Cent., v, 77.—D. C.

MELANDER, Mon. Empid., I, 217. Tarrytown, N. Y.—O. S.

pluto MELANDER, Mon. Empid., I, 217, f. 39.—San Diego, Cal.; doubtfully from Albion and Juliaetta, Idaho.

rufiventris MELANDER, Mon. Empid., I, 341.—Cloudcroft, N. M.

tenellus MELANDER, Mon. Empid., I, 223, f. 28, 38.—Champaign Co., Ill.; Brookings, S. D.

tersus COQUILLETT, Rev. Empid., 439.—Ga., N. C.

MELANDER, Mon. Empid., I, 219.—Ga., La.

trivialis LOEW, Cent., v, 76.—Me., D. C.

MELANDER, Mon. Empid., I, 216, f. 26, 34, 43.—New Bedford, Mass.

See *caligatus*.

COQUILLETT, Proc. Ent. Soc. Wash., v, 265, notes.

White Mts., N. H.—Slosson. See *caligatus* and *crassifemoris*.

vicarius WALKER, Trans. Ent. Soc., n. ser., iv, 149 (*Tachydromia*).—U. S.

MELANDER, Mon. Empid., i, 220, quotes desc.

vierecki MELANDER, Mon. Empid., i, 340.—Cloudercroft, N. M.

TACHYDROMIA.

MEIGEN, Illig. Mag., ii, 269, 1803; Syst. Besch., iii, 68, Div. A; vi, 341 (the last *Tachypeza*).

SCHINER, Fauna Austr., i, 92, 1862.

OSTEN SACKEN, Cat., 1878, 241, note.

COQUILLETT, Revis. Empid., 1895, 439, table of species.

MELANDER, Mon. Empid., i, 224, 1902, def. and table of species.

HOWARD, Proc. Wash. Acad. Sci., ii, 560, records the rearing of an undetermined species from human excrement.

COQUILLETT, Proc. Ent. Soc. Wash., v, 265, notes; recognizes *Tachypeza* as distinct.

bacis WALKER, List, iii, 510.—Jamaica.

MELANDER, Mon. Empid., i, 226, quotes desc.

brachialis MELANDER, Mon. Empid., i, 343.—Bonnton, N. J.

clavipes LOEW, Cent., v, 73 (*Tachypeza*).—Ill.

MELANDER, Mon. Empid., i, 229.

corticalis MELANDER, Mon. Empid., i, 343.—Cloudercroft, N. M.

enecator MELANDER, Mon. Empid., i, 226.—St. John's Co., Quebec; Lance Cr., Wyo.

fenestrata SAY, Jour. Acad. Sci. Phil., iii, 95; Compl. Works, ii, 82 (*Sicus*).—Mid. States.

WIEDEMANN, Auss. Zw., ii, 12.

MELANDER, Mon. Empid., i, 228.

flavida WILLISTON, of Coquillett, see *Drapetis*.

inusta MELANDER, Mon. Empid., i, 226, f. 50, 54.—Juliaetta and Craig's Mt., Ida.; Magdalena Mts., N. M.

lata COQUILLETT, Proc. Ent. Soc. Wash., v, 266.—Biscayne Bay, Fla.

maculipennis WALKER, see *Phoncustica*.

nubifera COQUILLETT, Dipt. Commander Ids., 343.—Bering Id.

MELANDER, Mon. Empid., i, 342.

COQUILLETT, Proc. Ent. Soc. Wash., v, 265, note.

portæcola WALKER, List, iii, 506.—Martin Falls, Canada.

MELANDER, Mon. Empid., i, 227, quotes desc.

postica WALKER, Trans. Ent. Soc., n. ser., iv, 149.—U. S.

? MELANDER, Mon. Empid., i, 227, doubtfully identified from Lawrence, Kans.

pruinosa COQUILLETT, Proc. Ent. Soc. Wash., v, 267 (*Tachypeza*).—Atherton, Mo.

pusilla LOEW, Cent., v, 74 (*Tachypeza*).—Ill.

MELANDER, Mon. Empid., i, 229, f. 51.—Ill., Mass. N. J.—Smith Cat.

rapax LOEW, Cent., v, 71 (*Tachypeza*).—Ill.

MELANDER, Mon. Empid., i, 229, f. 55.—Mass., Ind., Ill., Wis., Wyo.

rostrata LOEW, Cent., v, 72 (*Tachypeza*).—White Mts., N. H.; N. Y.

MELANDER, Mon. Empid., i, 229.

schwarzii COQUILLETT, Revis. Empid., 440.—N. Cal. and Utah.

WHEELER and MELANDER, Biologia, Dipt., i, 375, oc. in Guerrero, Mex.

- MELANDER, Mon. Empid., I, 225, f. 52.—Cal., Utah, Ida., Tex.
 Franconia, N. H.—Melander *in litt.*
similis WALKER, List, III, 506.—Martin Falls, Canada.
 MELANDER, Mon. Empid., I, 229, quotes desc.
 White Mts., N. H.—Slosson.
varipennis COQUILLETT, Proc. Ent. Soc. Wash., v, 266.—Franconia, N. H.
 SLOSSON, Ent. News, XIV, 266, habits of adult.
vittipennis WALKER, Trans. Ent. Soc., n. ser., IV, 149.—U. S.
 MELANDER, Mon. Empid., I, 227, quotes desc.
winthemi ZETTERSTEDT, Ins. Lapp., 548; Dipt. Scand., I, 321 (*Tachypeza*).—Europe.
 OSTEN SACKEN, Cat., 106, oc. in N. A.—Mt. Washington, N. H.
 MELANDER, Mon. Empid., I, 227.

COLOBONEURA.

- MELANDER, Mon. Empid., I, 229, 1902.
houghi MELANDER, Mon. Empid., I, 206, f. 2, 3 (*Stilpon*).—New Bedford, Mass.
 Gen. ref. by Melander *in litt.*
inuitata MELANDER, Mon. Empid., I, 230, 344, f. 47, 48, 49.—Wood's Hole, Mass.; R. I.; Lake Worth, Fla.
 SLOSSON, Ent. News, XIV, 268, habits of adult.
nana COQUILLETT, Proc. Ent. Soc. Wash., v, 267.—Lake Worth, Fla.

HEMERODROMIA.

- MEIGEN, Syst. Besch., III, 61, 1822.
 RONDANI, Dipt. Ital. Prod., I, 148, 1856 (*Mantipeza*). [Mel.]
 SCHINER, Fauna Austr., I, 82, 1862.
 LOEW, Wien. Ent. Monatschr., 1864, 237.
 COQUILLETT, Revis. Empid., 1895, 391, table of species; 392 (*Neoplata*). [Mel.]
 WILLISTON, Trans. Ent. Soc. Lond., 1896, 440, on the relations of *Mantipeza*, etc.
 MELANDER, Mon. Empid., I, 233, 1902, def. and table.
albipes WALKER, Walker, List, III, 505.—Martin Falls, Canada.
 MELANDER, Mon. Empid., I, 237, quotes desc.
capta COQUILLETT, Revis. Empid., 391.—N. Y.
 MELANDER, Mon. Empid., I, 237.
collusor MELANDER, Mon. Empid., I, 235, f. 57, 58.—Dubois and Dinwiddie Cr., Wyo.; Col.
defecta LOEW, Cent., II, 55.—D. C.
 MELANDER, Mon. Empid., I, 235. N. J.—Smith Cat.
defessa WILLISTON, Trans. Ent. Soc. Lond., 1896, 439, pl. XIV, f. 166.—St. Vincent, W. I.
 MELANDER, Mon. Empid., I, 237.
empiformis SAY, Jour. Acad. Sci. Phil., III, 99; Compl. Works, II, 85 (*Ochthera*).—Ill.
 LOEW, Cent., II, 56 (*vittata*); Mon. N. A. Dipt., I, 159, note on Say.
 OSTEN SACKEN, Cat., 106, syn. with a doubt.
 MELANDER, Mon. Empid., I, 236.—Pa.
mexicana MELANDER, Mon. Empid., I, 235, f. 56, 60.—Orizaba, Mex.
notata LOEW, Cent., II, 53.—Ill., Pa.
 MELANDER, Mon. Empid., I, 238.

obsoleta LOEW, Cent., II, 52.—Ill.

MELANDER, Mon. Empid., I, 238. Md.—O. S.

palloris COQUILLETT, Revis. Empid., 392 (*Mantipeza*).—N. H.

MELANDER, Mon. Empid., I, 238.

precatoria FALLÉN, Empidæ, 10, 34 (*Tachydromia*).—Europe.

STEPHENS, Illustrations, pl. XLV, f. 3.

MEIGEN, Syst. Besch., III, 63, pl. XXIII, f. 13; 62, f. 6 (*monostigma*).

SCHINER, Fauna Austr., I, 83.

WALKER, List, III, 505, oc. in N. A.—Martin Falls, Canada.

MELANDER, Mon. Empid., I, 238, notes.

rogatoris COQUILLETT, Revis. Empid., 392.—N. C.

MELANDER, Mon. Empid., I, 236, f. 65.—Wis., Wyo.

scapularis LOEW, Cent., II, 54.—Md.

COQUILLETT, Revis. Empid., 392, refers to *Neoplasta*, n. gen.

MELANDER, Mon. Empid., I, 234, f. 59.—Me., Pa., Tenn., Wyo.

N. J.—Smith Cat.; White Mts., N. H.—Slosson.

superstitiosa SAY, Long's Exped., Appendix, 376; Compl. Works, I, 256.—N. W. Terr.

WIEDEMANN, Auss. Zw., II, 11.

OSTEN SACKEN, Cat., 242, quotes a published reference to predaceous habits by Walsh.

MELANDER, Mon. Empid., I, 236. Drayton, Id., Fla.—Johnson.

valida LOEW, Cent., II, 51.—Huds. B. Terr.

COQUILLETT, Proc. Wash. Acad. Sci., II, 423, oc. in Alaska (*Mantipeza*).

MELANDER, Mon. Empid., I, 238.

vittata LOEW, see *cmpeiformis*.

LITANOYMYIA.

MELANDER, Mon. Empid., I, 231, 1902, def. and table of species.

elongata MELANDER, Mon. Empid., I, 232.—Mass., Wis., S. D.

mexicana WHEELER and MELANDER, Biologia, Dipt., I, 376 (*Sciodromia*).—Guerrero, Mex.

MELANDER, Mon. Empid., I, 232.

CHIROMANTIS.

RONDANI, Dipt. Ital. Prod., I, 148, 1856.

MELANDER, Mon. Empid., I, 344, 1902.

vocatoria FALLÉN, Empides, 12 (*Tachydromia*).—Europe.

ZETTERSTEDT, Dipt. Scand., I, 270 (*Phyllodromia*).

MELANDER, Mon. Empid., I, 345.

N. J.—Smith Cat.,—so far the only record for N. A.

OREOTHALIA.

MELANDER, Mon. Empid., I, 233, 1902.

pelops MELANDER, Mon. Empid., I, 233.—Kendrick, Idaho.

HELEODROMIA.

HALIDAY, Entom. Mag., I, 159, 1833; Westwood's Introd., II, 132, 1840 (the latter *Sciodromia*).

ZETTERSTEDT, Ins. Lapp., 572, 1838 (*Microccra*).

SCHINER, Fauna Austr., I, 85, 1862 (*Sciodromia*).

MELANDER, Mon. Empid., I, 345, 1902 (id.).

COQUILLETT, Proc. Ent. Soc. Wash., v, 250, 1903.

pullata MELANDER, Mon. Empid., I, 345 (*Sciodromia*).—Las Vegas Range, N. M.

Note.—For *Sciodromia bicolor* LOEW, of Coquillett, see *Boreomyia*.

For *Sciodromia palliata* COQUILLET, see *Microphorus*.

For *Sciodromia mexicana* WHEELER and MELANDER, see *Litanomyia*.

BOREOMYIA.

COQUILLET, Proc. Ent. Soc. Wash., v, 247, 1903.

bicolor LOEW, Cent., III, 34 (*Synamphotera*).—Sitka.

COQUILLET, Revis. Empid., 388; Proc. Wash. Acad. Sci., II, 423, oc. in Popof Id., Alaska (*Sciodromia*); Proc. Wash. Ent. Soc., v, 247, gen. ref.

MELANDER, Mon. Empid., I, 231, 1902 (*Synamphotera*).

ROEDERIOIDES.

COQUILLET, Bull. 47, N. Y. State Mus., 585, 1901.

MELANDER, Mon. Empid., I, 239, 1902.

juncta COQUILLET, loc. cit.—Adirondacks, N. Y.

NEEDHAM, loc. cit., 581, pl. xv, f. 5-8. Reared from aquatic larvæ in creeks.

MELANDER, Mon. Empid., I, 239.

ARDOPTERA.

MACQUART, Dipt. Nord France, 1827; Hist. Nat. Dipt., I, 358, 1834.

SCHINER, Fauna Austr., I, 85, 1862.

LOEW, Wien. Ent. Monatsch., II, 7.

MELANDER, Mon. Empid., I, 239, 1902.

irrorata FALLÉN, Empidiæ, 13 (*Tachydromia*).—Europe.

MEIGEN, Syst. Besch., III, 66, pl. XXIII, f. 11.

WALKER, Ins. Brit., I, 103, pl. III, f. 5.

SCHINER, Fauna Austr., I, 85.

MELANDER, Mon. Empid., I, 239.

N. A.—“Loew in litt.”—O. S. White Mts., N. H.—Slosson.

CLINOCERA.

MEIGEN, Illig. Mag., II, 271, 1803.

LOEW, Wien. Ent. Monatsch., 1858, 238.

SCHINER, Fauna Austr., I, 84, 1862.

MELANDER, Mon. Empid., I, 240, 1902, def. and table of species;—the latter amended, p. 346.

MIK, Verh. Zool.-Bot. Ges., 1881, 320, divides into ten genera,—not followed by Melander

binotata LOEW, Zeitsch. f. Ges. Naturwiss., 1876, 325.—N. Y.

MELANDER, Mon. Empid., I, 243.—Montreal, Canada.

conjuncta LOEW, Wien. Ent. Monatsch., IV, 79.—Middle States.

MELANDER, Mon. Empid., I, 242; note on type, 346.

dolicheretma MELANDER, Mon. Empid., I, 241.—Juliaetta, Idaho.

fuscipennis LOEW, Zeitsch. f. Ges. Naturwiss., 1876, 324.—White Mts., N. H.

MELANDER, Mon. Empid., I, 245.

lecta MELANDER, Mon. Empid., I, 243.—Kendrick and Lewiston, Idaho.

lepida MELANDER, Mon. Empid., I, 241.—Juliaetta, Idaho.

lineata LOEW, Cent., II, 50.—Pa.

MELANDER, Mon. Empid., I, 241, f. 61, 62.—Seattle, Wash.

maculata LOEW, Wien. Ent. Monatsch., IV, 79.—Middle States.

MELANDER, Mon. Empid., I, 244.

maculipes BIGOT, Bull. Soc. Zool. France, XII, 22.—Cal.; placed among the Leptidæ.

MELANDER, Mon. Empid., I, 245, notes.

simplex LOEW, Cent., II, 49.—Huds. B. Terr.

? WALKER, List, III, 504 (*Heliodromia longipes*).—Martin Falls, Canada. [O. S., with query.]

MELANDER, Mon. Empid., I, 240.

stagnalis HALIDAY, Ent. Mag., I, 159 (*Hemerodromia*).—Europe.

SCHINER, Fauna Austr., I, 84.

LUNDBECK, Dipt. Grœnl., I, 297, oc. in Greenland.

COQUILLETT, Proc. Ent. Soc. Wash., V, 264, mentions this as *Hydrodromia*.

taos MELANDER, Mon. Empid., I, 242.—Franconia, N. H.

MEGHYPERUS.

LOEW, Stett. Ent. Zeit., XI, 1850, 303.

SCHINER, Fauna Austr., I, 78, 1862.

MELANDER, Mon. Empid., I, 255, 1902, def. and table of species.

nitidus MELANDER, Mon. Empid., I, 255, f. 72, 73.—Moscow, Idaho.

occidens COQUILLETT, Revis. Empid., 435.—S. Cal.

SYNECHES.

WALKER, Dipt. Saund., 165, 1852.

RONDANI, Dipt. Ital. Prod., 152, 1856 (*Pterospilus*).

LOEW, Dipterenfauna Südafrika's, 1860, 259; quoted in part by O. S., Cat., 240.

SCHINER, Fauna Austr., I, 77, 1862.

COQUILLETT, Revis. Empid., 436, 1895, table of species.

SCHWARZ, Proc. Wash. Acad. Sci., 1891, 146, feeding habits; quoted by Melander, Mon. Empid., I, 251, footnote.

MELANDER, Mon. Empid., I, 251, 1902, def. and table; the latter amended, 346.

COQUILLETT, Proc. Ent. Soc. Wash., V, 246, 1903, proposes to replace *Syneches* with *Acromyia* LATR.; but the latter was never published as a generic or subgeneric name.

albonotatus LOEW, Cent., II, 18.—D. C.

MELANDER, Mon. Empid., I, 252.

debilis COQUILLETT, Revis. Empid., 436.—D. C., Md.

MELANDER, Mon. Empid., I, 253.—Ga.

hyalinus COQUILLETT, Revis. Empid., 437.—Md.

MELANDER, Mon. Empid., I, 252. N. J.—Smith Cat.

longipennis MELANDER, Mon. Empid., I, 346.—Hertford Co., N. C.

pusillus LOEW, Cent., I, 25.—N. Y., Chicago.

WILLISTON, Trans. Ent. Soc. Lond., 1896, 308, pl. XI, f. 84.—St. Vincent, W. I.

Note.—In Scudder's Butterflies of New England, III, 1913, Dr. Williston discusses the case of a specimen of this species supposed to have been bred from the pupa of a butterfly, *Lycæna neglecta*.

MELANDER, Mon. Empid., I, 253.—Wis., Kans., N. M.

- quadrangularis** WHEELER and MELANDER, *Biologia*, Dipt., 1, 374.—Tabasco, Mex.
MELANDER, *Mon. Empid.*, 1, 253, redesc.
- rufus** LOEW, *Cent.*, 1, 24.—N. Y., Chicago.
MELANDER, *Mon. Empid.*, 1, 253.—Ohio, Ind., Wis.
N. J.—Smith Cat.
- simplex** WALKER, *Dipt. Saund.*, 165, pl. v, f. 7.—U. S.
VAN DER WULP, *Tijdschr. v. Ent.*, x, 139, pl. III, f. 18-21 (*punctipennis*).
Wis.
LOEW, *Zeitsch. f. Ges. Naturwiss.*, xxxvii, 115, syn.
MELANDER, *Mon. Empid.*, 1, 254, f. 86.—Mass. and Ontario to Wis. and Ill.
N. J.—Smith Cat.; Charlotte Harbor, Fla.—Johnson.
- thoracicus** SAY, *Jour. Acad. Sci. Phil.*, III, 76; *Compl. Works*, II, 68 (*Hybos*).—Pa.
WIEDEMANN, *Auss. Zw.*, 1, 538 (id.).
MACQUART, *Dipt. Exot.*, 1, 2, 156, pl. XIII, f. 1 (id.).—Pa.
MELANDER, *Mon. Empid.*, 1, 254, f. 84.—Pa. to Kans.
N. J.—Smith Cat.

SYNDYAS.

- LOEW, *Dipterenfauna Südafrika's*, 260, 1860.
OSTEN SACKEN, *Cat.*, 240, 1878.
MELANDER, *Mon. Empid.*, 1, 254, 1902, def. and table.
- dorsalis** LOEW, *Cent.*, 1, 26.—N. Y.
MELANDER, *Mon. Empid.*, 1, 254.—Ill.
- polita** LOEW, *Cent.*, 1, 27.—Carolina.
MELANDER, *Mon. Empid.*, 1, 254, f. 83.—Mass., Ga., Ala., La., Kans., Ohio, Mich.

HYBOS.

- MEIGEN, *Illig. Mag.*, II, 269, 1803; *Syst. Besch.*, II, 246, 1820.
SCHINER, *Fauna Austr.*, 1, 77, 1862.
OSTEN SACKEN, *Cat.*, 240, note on Walker's types.
COQUILLETT, *Revis. Empid.*, 437, 1895, table of species; *ibid.* (*Euhybus*).
[Wh. and Mel.]
WHEELER and MELANDER, *Biologia*, Dipt., 1, 372, 1902, table of Mexican species.
MELANDER, *Mon. Empid.*, 1, 245, 1902, def. and table of species.
- dimidiata** BELLARDI, see *sequens*.
- dimidiata** LOEW, see *electus*.
- duplex** WALKER, see *triplex*.
- electus** MELANDER, *Mon. Empid.*, 1, 245, change of name; 247, desc.—Tifton, Ga.; New Bedford, Mass.
LOEW, *Wien. Ent. Monatsch.*, v, 36 (*dimidiata*, preoc.).—Cuba.
WILLISTON, *Trans. Ent. Soc. Lond.*, 1896, 307, pl. XI, f. 83 (*dimidiata* Lw.).—St. Vincent, W. I.
- mellipes** WHEELER and MELANDER, *Biologia*, Dipt., 1, 373.—Guerrero, Mex.
MELANDER, *Mon. Empid.*, 1, 247, f. 78, redesc.
- purpureus** WALKER, see *triplex*.
- reversus** WALKER, *List*, III, 487.—Trenton Falls, N. Y.
MELANDER, *Mon. Empid.*, 1, 248.—Jamesburg, N. J.
- sequens** MELANDER, *Mon. Empid.*, 1, 245, change of name; 249, desc.
BELLARDI, *Saggio*, II, 97 (*dimidiata*, preoc.).—Mex.

♂ *slossonæ* COQUILLETT, Revis. Empid., 437.—N. H.

MELANDER, Mon. Empid., 1, 247.—Mass., Wis.

spinicosta WHEELER and MELANDER, Biologia, Dipt., 1, 374.—Guerrero, Mex.

MELANDER, Mon. Empid., 1, 246, f. 77, redesc.

subjectus WALKER, see *triplex*.

triplex WALKER, List, III, 486 and 487 (*triplex*, *purpureus*, *duplex*, and *subjectus*).—Trenton Falls, N. Y.; Ga.; N. Y.; Martin Falls, Canada. [Wheeler and Melander.]

COQUILLETT, Revis. Empid., 437, refers to *Euhybus*, n. gen.; Proc. U. S. N. M., XXII, 251, oc. of *subjectus* in Porto Rico.

WHEELER and MELANDER, Biologia, Dipt., 1, 373, notes on varieties, recognizing as such *triplex*, *purpureus*, *subjectus*, *duplex*, *locwi*, *bakeri*, *tabascensis*, and *yucatanus*.—Tabasco and Yucatan, Mex.

MELANDER, Mon. Empid., 1, 248, f. 79, 80, 81.—Eastern half of N. A., from Mass. to Vera Cruz and Yucatan, Mex.

COQUILLETT, Proc. Ent. Soc. Wash., v, 264, table of three supposedly valid species, *Euhybus subjectus*, *purpureus*, and *triplex*.

typicus WHEELER and MELANDER, Biologia, Dipt., 1, 373.—Guerrero, Mex.

MELANDER, Mon. Empid., 1, 246, redesc.

OEDALEA.

MEIGEN, Syst. Besch., II, 355, 1820.

SCHINER, Fauna Austr., 1, 80, 1862.

MELANDER, Mon. Empid., 1, 256, 1902.

First notice of occurrence in N. A. by Mrs. Slosson, Ent. News, IX, 352.

ohioensis MELANDER, Mon. Empid., 256, f. 74, 75, 76.—Vinton, Ohio.

N. J.—Smith Cat. (? *stigmatella* ZETT., a European species); syn. and notes by Melander, op. cit., 347.

pruinosa COQUILLETT, Proc. Ent. Soc. Wash., v, 267.—Franconia, N. H.

LEPTOPEZA.

MACQUART, Dipt. du Nord France, 1827; Hist. Nat. Dipt., 1, 320, 1834.

SCHINER, Fauna Austr., 1, 82, 1862.

COQUILLETT, Revis. Empid., 435, 1895, table of species.

MELANDER, Mon. Empid., 1, 257, 1902, def. and table of species.

compta COQUILLETT, Revis. Empid., 435.—N. H., Mass.

MELANDER, Mon. Empid., 1, 258, f. 76.—Ohio, Tenn., Ill., Wis., Ida.

N. J.—Smith Cat.

flavipes MEIGEN, Syst. Besch., II, 353 (*Hybos*).—Europe.

SCHINER, Fauna Austr., 1, 82.

OSTEN SACKEN, Cat., 104, oc. on Saskatchewan Riv., Canada.

MELANDER, Mon. Empid., 1, 258, f. 68.—Dixie Landing, Va.

N. J.—Smith Cat.; White Mts., N. H.—Slosson.

OCYDROMIA.

MEIGEN, Syst. Besch., II, 311, 1820.

SCHINER, Fauna Austr., 1, 81, 1862.

MELANDER, Mon. Empid., 1, 259, 1902.

glabricula FALLÉN, Empidiæ, 33 (*Empis*).—Europe.

MEIGEN, Syst. Besch., II, 353 and 354 (*ruficeps* and *scutellata*); VI, 334 (*dorsalis* and *nigripennis*).

LOEW, Isis, 1840 (*melanopleura*).

SCHINER, Fauna Austr., 1, 81, syn. and desc.

OSTEN SACKEN, Cat., 100, oc. at Sitka—"Loew in litt."

WALKER, List, III, 488 (*peregrinator*).—Trenton Falls, N. Y. [Mel.]

COQUILLETT, Proc. Wash. Acad. Sci., II, 421, oc. in Sitka.

MELANDER, Mon. Empid., 1, 259, f. 66, 67.—Wis., Wyo., Vancouver Id.

MEGACYTTARUS.

BIGOT, Bull. Soc. Ent. France, 1880, 47.

COQUILLETT, Revis. Empid., 388, 1895, makes a synonym of *Rhamphomyia*.

MELANDER, Mon. Empid., 1, 350, 1902.

argenteus BIGOT, loc. cit.—Cal.

COQUILLETT, Revis. Empid., 388, regards as the female of *Rhamphomyia limbata* LW.

MELANDER, Mon. Empid., 1, 350, translates pt. desc.; accepts provisionally.

BRACHYSTOMA.

MEIGEN, Syst. Besch., III, 12, 1822.

SCHINER, Fauna Austr., 1, 117, 1862.

MELANDER, Mon. Empid., 1, 259, 1902, def. and table of species.

binummus LOEW, see *Blepharoprocta*.

occidentalis MELANDER, Mon. Empid., 1, 260, f. 89.—Wash., Idaho.

robertsonii COQUILLETT, Revis. Empid., 393.—Ill.

MELANDER, Mon. Empid., 1, 260.—Tenn., Ohio.

serrulata LOEW, see *Blepharoprocta*.

BLEPHAROPROCTA.

LOEW, Cent., II, 17, 1862.

MELANDER, Mon. Empid., 1, 261, 1902, def. and table of species.

binummus LOEW, Cent., II, 16 (*Brachystoma*).—D. C.

MELANDER, Mon. Empid., 1, 261, f. 91, 92.

nigrimanus LOEW, Cent., II, 17.—Ill.

MELANDER, Mon. Empid., 1, 261.

serrulata LOEW, Cent., 1, 23 (*Brachystoma*).—Ga.

MELANDER, Mon. Empid., 1, 262, f. 90.

Ga. and Ohio—O. S.

EMPIMORPHA.

COQUILLETT, Revis. Empid., 396, 1895, def. and table of species.

MELANDER, Mon. Empid., 283, note; 329, def. and table of species, 1902.

Doubtfully distinct from *Empis*—Meland.

barbata LOEW, Cent., II, 19 (*Empis*).—Cal.

COQUILLETT, Revis. Empid., 396, refers to this genus.

MELANDER, Mon. Empid., 1, 329, f. 106.—Cal.

comantis COQUILLETT, Revis. Empid., 396.—N. Cal.

MELANDER, Mon. Empid., 1, 330, 353, female, etc.—Cal.

geneatis MELANDER, Mon. Empid., 1, 329, f. 105.—Cal.

PACHYMERIA.

STEPHENS, Syst. Catal., 1829.

MACQUART, Hist. Nat. Dipt., 1, 333 (*Pachymerina*); II, 657, adopts earlier name, 1834.

LOEW, Wien. Ent. Monatsch., viii, 12.

SCHINER, Fauna Austr., i, 110, 1862.

MELANDER, Mon. Empid., i, 330, 1902, def. and table of species.

brevis LOEW, Cent., ii, 22.—D. C.

MELANDER, Mon. Empid., i, 330.

pubica LOEW, Cent., i, 35; Wien. Ent. Monatsch., viii, 12 ("The *P. tumida* quoted there as a synonym of *P. pubica* does not exist"—O. S.).—D. C.

MELANDER, Mon. Empid., i, 331.

EMPIS.

LINNÉ, Fauna Suecica, 2d edition, p. 466, 1761.

MEIGEN, Syst. Besch., iii, 15, 1822.

SCHINER, Fauna Austr., i, 102, 1862.

BIGOT, Bull. Soc. Ent. France, 1880, 47 (*Enoplemphis*).

COQUILLETT, Revis. Empid., 392-400, 1895, table of species; syn.

WHEELER and MELANDER, Biologia, Dipt., i, 366, 1902, table of Mexican species.

MELANDER, Mon. Empid., i, 282, 1902, full discussion and table of species.

abcirus WALKER, List, iii, 494.—Ga.

MELANDER, Mon. Empid., i, 299, quotes Walker.

æripes MELANDER, Mon. Empid., i, 328, f. 141.—Idaho.

ærobatica MELANDER, Mon. Empid., i, 323.—Cal. and Moscow, Idaho.

ALDRICH and TURLEY, Amer. Nat., xxxiii, 809, habits—"A Balloon-making Fly."—Moscow, Idaho; determined as "*Empis* near *poplitea* Lw."

agasthus WALKER, List, iii, 496.—Martin Falls, Canada.

COQUILLETT, Revis. Empid., 397, quotes from Walker.

aldrichii MELANDER, Mon. Empid., i, 309, f. 110.—Moscow, Ida., and Mt. Hood, Ore.

amystis WALKER, List, iii, 493.—N. Y.

MELANDER, Mon. Empid., i, 299.

annulipes WHEELER and MELANDER, Biologia, Dipt., i, 369.—Amula in Guerrero, Mex.

MELANDER, Mon. Empid., i, 115, same redesc.

armipes LOEW, Cent., i, 300, 353.

arthritica MELANDER, Mon. Empid., i, 318, f. 135, 144.—Montgomery Co., Pa.

asema MELANDER, Mon. Empid., i, 294, f. 130.—Austin, Tex.

atra WIEDEMANN, Auss. Zw., ii, 1.—St. Croix.

atrifemur WHEELER and MELANDER, Biologia, Dipt., i, 370.—Guerrero, Mex.

MELANDER, Mon. Empid., i, 290, notes.

avida COQUILLETT, Revis. Empid., 405.—Ill.

MELANDER, Mon. Empid., i, 307.

azteca WHEELER and MELANDER, Biologia, Dipt., i, 369.—Amula in Guerrero, Mex.

MELANDER, Mon. Empid., i, 291, f. 119, redesc.

barbata LOEW, see *Empimorpha*.

benigna OSTEN SACKEN, see *Lamprempis*.

bicolor BELLARDI, Saggio, ii, 98.—Cuantla, Mex.

WHEELER and MELANDER, Biologia, Dipt., i, 370, oc. in Amula, Mex., and note.

MELANDER, Mon. Empid., i, 291, f. 112, 113, redesc.

bigoti MELANDER, Mon. Empid., i, 319, change of name and transl. of desc.

BIGOT, Bull. Soc. Ent. France, 1882, No. 9, p. 112 (*Enoplemphis cinerca*, preoc. in *Empis*).—Cal.

- COQUILLET, Revis. Empid., 388, 397, notes; in Proc. Ent. Soc. Wash., v, 265, he states that *manca* is "almost certainly" the same. Melander, *in litt.*, does not agree.
- brachysoma** COQUILLET, Proc. Wash. Acad. Sci., II, 409.—Saldovia, Alaska.
MELANDER, Mon. Empid., I, 308.
Note.—For the "*brachystoma* Coq. MSS." of Smith's N. J. cat., see *Hilara umbrosa*.
- cacuminifer** MELANDER, Mon. Empid., I, 304, f. 124.—Ohio, Ala.
- cæligena** MELANDER, Mon. Empid., I, 314, f. 107.—Ala.
- canaster** MELANDER, Mon. Empid., I, 326, f. 139, 140.—Idaho, Ore.
- capta** COQUILLET, Revis. Empid., 405.—N. C., Ga.
MELANDER, Mon. Empid., I, 310.
- chichimeca** WHEELER and MELANDER, see *Lamprcmphis*.
- cinerea** BIGOT, see *bigoti*.
- clauda** COQUILLET, Proc. Wash. Acad. Sci., II, 407.—Yakutat, Popof Id., and Kadiak, Alaska.
MELANDER, Mon. Empid., I, 321.
- clausa** COQUILLET, Revis. Empid., I, 401.—Ill.
MELANDER, Mon. Empid., I, 293, f. 129.—Western U. S., common.
- colonica** WALKER, List, III, 498.—Nova Scotia.
MELANDER, Mon. Empid., I, 300.
- comantis** COQUILLET, Revis. Empid., 402.—N. Cal.
MELANDER, Mon. Empid., I, 308.
- compta** COQUILLET, Revis. Empid., 405.—Ill.
MELANDER, Mon. Empid., I, 306, male.—Opelousas, La.
- conjuncta** COQUILLET, Proc. Wash. Acad. Sci., II, 411.—Sitka and Orca, Alaska.
MELANDER, Mon. Empid., I, 277 (*Ragas*). [Coq., Proc. Ent. Soc. Wash., v, 264.]
- cormus** WALKER, List, III, 496.—Martin Falls, Canada.
MELANDER, Mon. Empid., I, 296, note.
- cyanea** BELLARDI, see *Lamprcmphis*.
- diaphorina** OSTEN SACKEN, see *Lamprcmphis*.
- distans** LOEW, Cent., VIII, 54.—Ga.
MELANDER, Mon. Empid., I, 295, f. 127.—Conn. and La.
- dolobraria** MELANDER, Mon. Empid., I, 325.—Cal.
subspecies **disconvenita**, loc. cit.—Cal.
- dolorosa** WHEELER and MELANDER, Biologia, Dipt., I, 370.—Amula in Guerrero, Mex.
MELANDER, Mon. Empid., I, 295, f. 128, redesc.
- enodis** MELANDER, Mon. Empid., I, 303, f. 125.—Glen Ellyn and Chicago, Ill.
- eudamides** WALKER, List, III, 493.—N. A.
MELANDER, Mon. Empid., I, 299, quotes desc.
- exilis** COQUILLET, Proc. Ent. Soc. Wash., v, 269.—Atherton, Mo.
- falcata** MELANDER, Mon. Empid., I, 326, f. 137.—Berkeley, Cal.; Juliaetta, Idaho.
- frontalis** COQUILLET, Proc. Ent. Soc. Wash., v, 271.—St. George Id., Alaska.
- fumida** COQUILLET, Proc. Wash. Acad. Sci., II, 409.—Metlakahtla, Virgin Bay, and Kukak Bay, Alaska.
MELANDER, Mon. Empid., I, 313.
- geniculata** KIRBY, Fauna Boreali Americana, Ins., 311.—Canada; repub. in Canad. Ent., XIII, 165.
MELANDER, Mon. Empid., I, 296. See *luctuosa*.
- gladiator** MELANDER, Mon. Empid., I, 316, f. 134.—Lawrence, Kans.
- gulosa** COQUILLET, Revis. Empid., 408.—Ill.
MELANDER, Mon. Empid., I, 297.

- hirtipes** COQUILLET, Proc. Ent. Soc. Wash., v, 270 (*hirtipes* and *tenebrosa*, male and female).—White Mts., N. M. [Melander, *in litt.*]
- ✓ **humilis** COQUILLET, Rev. Empid., 403.—Ill.
MELANDER, Mon. Empid., i, 297.
- infumata** COQUILLET, Proc. Wash. Acad. Sci., ii, 409.—Popof Id., Alaska.
MELANDER, Mon. Empid., i, 314.
- johnsoni** MELANDER, Mon. Empid., i, 303, f. 123.—Montgomery Co., Pa.
- labiata** LOEW, Cent., i, 33.—D. C.
MELANDER, Mon. Empid., i, 294.
- lævigata** LOEW, Cent., v, 49.—White Mts., N. H.
MELANDER, Mon. Empid., i, 312.
- laniventris** ESCHÖLTZ, Entomographien, i, 1822, 113.—Unalaska (Fox Ids.).
WIEDEMANN, Auss. Zw., ii, 6, quotes desc.
MACQUART, Dipt. Exot., i, 2, 162 (*Eriogaster*, n. gen.).
COQUILLET, Dipt. of Commander Ids., 343, oc. in Copper Ids., Alaska;
Proc. Wash. Acad. Sci., ii, 408, oc. at Popof Id., Alaska, common.
MELANDER, Mon. Empid., i, 300.
- leptogaster** LOEW, Cent., iii, 30.—D. C.
MELANDER, Mon. Empid., i, 300.
- levicula** COQUILLET, Revis. Empid., 406.—Ill.
MELANDER, Mon. Empid., i, 307.
- longipes** LOEW, Cent., v, 51.—N. Y., N. J.
MELANDER, Mon. Empid., i, 298, 353.
- loripedis** COQUILLET, Revis. Empid., 400.—Ill.
MELANDER, Mon. Empid., i, 316, f. 131.—Ill. and Ohio.
N. J.—Smith Cat.
- luctuosa** KIRBY, Fauna Boreali Americana, Ins., 311; repub. in Canad. Ent., xiii, 165.—Canada.
COQUILLET, Revis. Empid., i, 397, puts *geniculata* as a synonym: I should think both quite unrecognizable.
MELANDER, Mon. Empid., i, 296, quotes desc.
- manca** COQUILLET, Revis. Empid., 406.—Cal.
MELANDER, Mon. Empid., i, 320.
See *bigoti*.
- mira** BIGOT, Bull. Soc. Ent. France, 1880, No. 6, p. 63 (*Enoplempis*).—Cal.
COQUILLET, Revis. Empid., 388, note.
MELANDER, Mon. Empid., i, 319, transl. desc.
- mixopolia** MELANDER, Mon. Empid., i, 327.—Idaho.
- montezuma** WHEELER and MELANDER, Biologia, Dipt., i, 369.—Santiago in Jalisco, Mex.
MELANDER, Mon. Empid., i, 290, f. 114, redesc.
- neomexicana** MELANDER, Mon. Empid., i, 352.—Las Vegas Range, N. M.
- nodipes** MELANDER, Mon. Empid., i, 324, f. 143.—Magdalena, N. M.
- nuda** LOEW, Cent., ii, 20.—Ill.
MELANDER, Mon. Empid., i, 305, f. 126.—Ill.
- obesa** LOEW, Cent., i, 28.—Mass.
COQUILLET, Revis. Empid., 403 (*ravida*).—White Mts., N. H.
MELANDER, Mon. Empid., i, 309, 310, 353, desc. and syn. from Loew's type.
- ollius** WALKER, List, iii, 493.—Nova Scotia.
MELANDER, Mon. Empid., i, 299, quotes desc.
- ✓ **otiosa** COQUILLET, Revis. Empid., 407, 408.—Ill., Conn.
MELANDER, Mon. Empid., i, 302, f. 122.—Mass., N. H., Kans., La.
Montreal—Chagnon.



- pallida* LOEW, Cent., i, 30.—N. Y.
MELANDER, Mon. Empid., i, 301.
- pegasus* OSTEN SACKEN, Biologia, Dipt., i, 216.—Panama.
MELANDER, Mon. Empid., i, 292.
- pellucida* COQUILLET, Proc. Wash. Acad. Sci., ii, 408.—Alaska, several places.
MELANDER, Mon. Empid., i, 313.
- podagra* MELANDER, Mon. Empid., i, 318.—Juliaetta and Peck, Idaho.
- pœcilopectera* LOEW, Cent., i, 31.—N. Y.
MELANDER, Mon. Empid., i, 298.
- poplitea* LOEW, Cent., iii, 29.—Sitka.
COQUILLET, Proc. Wash. Acad. Sci., ii, 407, oc. in Alaska, several places, and in Col.
MELANDER, Mon. Empid., i, 321, 324, f. 136, 145 (*poplitea* and *serperastrorum*), 353, syn. from Loew's type.—Col. and Ida.
N. M.—Coq. See *ærobaticus*.
- ravida* COQUILLET, see *obesa*.
- reciproca* WALKER, Trans. Ent. Soc., n. ser., iv, 147.—U. S.
- rubida* WHEELER and MELANDER, Biologia, Dipt., i, 368.—Chilpancingo, Guerrero, Mex.
MELANDER, Mon. Empid., i, 302, f. 121, redesc.
- rufescens* LOEW, Cent., v, 52.—White Mts., N. H.
MELANDER, Mon. Empid., i, 302, f. 120.—Mass.
Axton, N. Y.—M. and H.
- scatophagina* MELANDER, Mon. Empid., i, 351.—Sitka, Alaska.
- scoparia* COQUILLET, Proc. Ent. Soc. Wash., v, 269.—Franconia, N. H.
- serperastrorum* MELANDER, see *poplitea*.
- sociabilis* WILLISTON, see *Rhamphomyia*.
- sordida* LOEW, Cent., i, 29.—D. C.
MELANDER, Mon. Empid., i, 298.
- spectabilis* LOEW, Cent., ii, 21.—Md.
MELANDER, Mon. Empid., i, 311, f. 109.—Delaware Co., Pa.
N. J.—Smith Cat.
- spiloptera* WIEDEMANN, Auss. Zw., ii, 5.—Mex.
LOEW, Cent., iii, 28 (*picta*); vol. i, p. 261, syn.—Mex.
MELANDER, Mon. Empid., i, 292.
- squamipes* COQUILLET, Proc. Ent. Soc. Wash., v, 271.—Sierra Madre, Chihuahua, Mex.
- stenoptera* LOEW, Cent., v, 50.—White Mts., N. H.
MELANDER, Mon. Empid., i, 304, 353.
- suavis* LOEW, see *Lamprocnipsis*.
- superba* LOEW, see *Lamprocnipsis*.
- tenebrosa* COQUILLET, Revis. Empid., 404.—Texas.
MELANDER, Mon. Empid., i, 311.
- tenebrosa* COQUILLET (*bis*), see *hirtipes*.
- teres* MELANDER, Mon. Empid., i, 315, f. 133, 142.—Idaho.
- tersa* COQUILLET, Revis. Empid., i, 404.—N. C.
MELANDER, Mon. Empid., i, 311.
- totipennis* BELLARDI, Saggio, ii, 99.—Mex.
MELANDER, Mon. Empid., i, 292.
- triangula* COQUILLET, Proc. Wash. Acad. Sci., ii, 410.—Alaska, several places; British Col.
MELANDER, Mon. Empid., i, 296. Hudsonian Zone, N. M.—Ckl.

- tridentata** COQUILLETT, Proc. U. S. N. M., XXIII, 609.—Delaware Co., Pa.
MELANDER, Mon. Empid., I, 301, f. 132.
N. J.—Smith Cat.
- vaginifer** MELANDER, Mon. Empid., I, 352.—D. C.
- valentis** COQUILLETT, Revis. Empid., 402.—N. Cal.
MELANDER, Mon. Empid., I, 320, f. 138.—Cal.
- varipes** LOEW, Cent., I, 34.—Pa.
MELANDER, Mon. Empid., I, 307.
White Mts., N. H.—Slosson; Montreal—Chagnon.
- violacea** LOEW, see *Lampremphis*.
- virgata** COQUILLETT, Revis. Empid., 408; Proc. Wash. Acad. Sci., II, 408, oc.—
Wash.; Alaska, common.
MELANDER, Mon. Empid., I, 312, f. 108.
- xochitl** WHEELER and MELANDER, Biologia, Dipt., I, 370.—Chilpancingo in Guerrero, Mex.
MELANDER, Mon. Empid., I, 292, f. 118, redesc.

HILARA.

- MEIGEN, Syst. Besch., III, I, 1822.
SCHINER, Fauna Austr., I, 112, 1862.
COQUILLETT, Revis. Empid., 394, 1895, table of species.
MELANDER, Mon. Empid., I, 262, 1902, def. and table of species.
- atra** LOEW, Cent., II, 42.—Ill.
MELANDER, Mon. Empid., I, 266.—Mass., Col., N. M.
Beulah, N. M.—Skinner.
- aurata** COQUILLETT, Proc. Wash. Acad. Sci., II, 411.—Kukak Bay, Alaska, and
Eastport, Me.
MELANDER, Mon. Empid., I, 269.
- baculifer** MELANDER, Mon. Empid., I, 271, f. 96.—Tifton, Ga.
- basalis** LOEW, Cent., II, 45.—Ill.
MELANDER, Mon. Empid., I, 267.
- bella** MELANDER, Mon. Empid., I, 271, f. 94.—Mass.
- brevipila** LOEW, Cent., II, 41.—Ill.
MELANDER, Mon. Empid., I, 266.
- cana** COQUILLETT, Revis. Empid., 395.—S. Cal.
MELANDER, Mon. Empid., I, 269.
- carbonaria** MELANDER, Mon. Empid., I, 272.—New Bedford, Mass.
- congregaria** MELANDER, Mon. Empid., I, 272.—Monterey Co., Cal.
Mentioned with *nugax* as "*Hilara* species" by Wheeler, Archiv. f.
Entwickelungsmechanik der Organismen, 1899, VIII, 375, where their habit
of flying in swarms is discussed.
- femorata** LOEW, Cent., II, 35.—Md.
MELANDER, Mon. Empid., I, 264.—N. J., Ohio, Wis.
White Mts., N. H.—Slosson; N. J.—Smith Cat.
- gracilis** LOEW, Cent., II, 44.—Pa.
MELANDER, Mon. Empid., I, 266.
White Mts., N. H.—Slosson; N. J.—Smith Cat.
- johnsoni** COQUILLETT, Revis. Empid., 395.—Ala.
MELANDER, Mon. Empid., I, 268.—Eufala, Ala.
- leucoptera** LOEW, Cent., II, 43.—Fla.
MELANDER, Mon. Empid., I, 266.
N. J.—Smith Cat.; Charlotte Harbor, Fla.—Johnson.

lutea LOEW, Cent., III, 33.—D. C.

MELANDER, Mon. Empid., I, 267. N. J.—Smith Cat.

macroptera LOEW, Cent., III, 32.—D. C.

MELANDER, Mon. Empid., I, 267.

migrata WALKER, List, III, 491.—Martin Falls, Canada.

MELANDER, Mon. Empid., I, 271, quotes desc.

mutabilis LOEW, Cent., II, 40.—Ill.

MELANDER, Mon. Empid., I, 265.

N. J.—Smith Cat.; Saranac Inn, N. Y.—Needham.

nigriventris LOEW, Cent., II, 38.—Pa.

MELANDER, Mon. Empid., I, 265.

nugax MELANDER, Mon. Empid., I, 273.—Monterey Co., Cal.

See note to *congregaria*.

plebeia WALKER, Trans. Ent. Soc., n. ser., IV, 148.—U. S.

MELANDER, Mon. Empid., I, 270, quotes desc.

quadrivittata MEIGEN, Syst. Besch., III, 7.—Europe.

SCHINER, Fauna Austr., I, 115.

COQUILLETT, Proc. Wash. Acad. Sci., II, 412, oc. at Kukak Bay, Popof Id., and Kadiak, all in Alaska.

MELANDER, Mon. Empid., I, 264.

seriata LOEW, Cent., V, 63.—White Mts., N. H.

MELANDER, Mon. Empid., I, 268.—N. J.

testacea LOEW, Cent., V, 64.—N. H.

MELANDER, Mon. Empid., I, 268.

N. J.—Smith Cat.; New Rochelle, N. Y.—O. S.

transfuga WALKER, List, III, 491.—Martin Falls, Canada.

COQUILLETT, Proc. Wash. Acad. Sci., II, 411, oc. at Berg Bay and Popof Id., Alaska.

MELANDER, Mon. Empid., I, 270, quotes desc.

tristis LOEW, Cent., V, 62.—N. H.

MELANDER, Mon. Empid., I, 267.

SLOSSON, Ent. News, XIV, 267, habits of adult.

N. J.—Smith Cat.; White Mts., N. H.—Slosson; Axton, N. Y.—M. and H.

trivittata LOEW, Cent., II, 39.—Ill.

MELANDER, Mon. Empid., I, 265 (habits on p. 200).—Central Texas.

White Mts., N. H.—Slosson.

umbrosa LOEW, Cent., II, 34.—Ill.

? MELANDER, Mon. Empid., I, 264.—Wood's Hole, Mass., with a doubt.

According to Melander, this is the "*Empis brachystoma* Coq. MSS." of Smith's N. J. Cat.; notwithstanding that *umbrosa* is also recorded there.

unicolor LOEW, Cent., II, 37.—Md.

MELANDER, Mon. Empid., I, 265.—Mass.

Axton, N. Y.—M. and H.

velutina LOEW, Cent., II, 36.—D. C.

MELANDER, Mon. Empid., I, 264.

viridis COQUILLETT, see *Lamprempis*.

wheeleri MELANDER, Psyche, June, 1901, 213, figs.—Wyo.

MELANDER, Mon. Empid., I, 270, f. 95, redesc.

OREOGETON.

SCHINER, Wien. Ent. Monatsch., iv, 53, 1860; Fauna Austr., i, 112, 1862.

MELANDER, Mon. Empid., i, 275, def. and table, 1902 (*Gloma* MEIG.—the correction is by Melander in litt.).

The N. A. species have been referred heretofore entirely to *Gloma*.

obscura LOEW, Cent., v, 68.—N. H.

COQUILLET, Proc. Wash. Acad. Sci., ii, 412, oc. in Yakutat and Virgin Bay, Alaska.

MELANDER, Mon. Empid., i, 276, f. 93.—Idaho.

White Mts., N. H.—Slosson.

rufa LOEW, Cent., v, 67.—N. H.

MELANDER, Mon. Empid., i, 275.

? **phthia** WALKER, List, iii, 492.—Trenton Falls, N. Y.

"Is not a *Gloma*—Loew in litt."—O. S.

scopifera COQUILLET, Proc. Wash. Acad. Sci., ii, 412.—Sitka, Alaska.

Melander, Mon. Empid., i, 276.

RAGAS.

WALKER, Entom. Mag., iv, 1837, 229.

SCHINER, Fauna Austr., i, 111, 1862.

MELANDER, Mon. Empid., i, 276, 1902, def. and table of species.

conjuncta COQUILLET, of Melander, see *Empis*.

mabelæ MELANDER, Mon. Empid., i, 277, f. 98.—Moscow, Idaho.

HORMOPEZA.

ZETTERSTEDT, Ins. Lapp., 540, 1840; Dipt. Scand., i, 257, 1842.

SCHINER, Fauna Austr., i, 111, 1862.

MELANDER, Mon. Empid., i, 273, 1902, def. and table of species.

brevicornis LOEW, Cent., v, 65.—Yukon R., Alaska.

MELANDER, Mon. Empid., i, 273, f. 87.—S. D., Idaho, Wyoming.

bullata MELANDER, Mon. Empid., i, 274, f. 88.—Jackson's Lake, Wyo.

nigricans LOEW, Cent., v, 66.—Yukon R., Alaska.

MELANDER, Mon. Empid., i, 275.—Moscow, Idaho.

LAMPREMPIS.

WHEELER and MELANDER, Biologia, Dipt., i, 366, 1902 (subg. of *Empis*).

MELANDER, Mon. Empid., i, 1902, 278, as separate genus; table of species.

benigna OSTEN SACKEN, Biologia, Dipt., i, 215 (*Empis*).—Ciudad in Durango, Mex.

MELANDER, Mon. Empid., i, 281.

chichimeca WHEELER and MELANDER, Biologia, Dipt., i, 368.—Amula in Guerrero, Mex.

MELANDER, Mon. Empid., i, 280, redesc.

cyanea BELLARDI, Saggio, ii, 98 (*Empis*).—Mex.

WHEELER and MELANDER, Biologia, Dipt., i, 367.—Guerrero, Mex.

MELANDER, Mon. Empid., i, 280, additional desc.

diaphorina OSTEN SACKEN, Biologia, Dipt., i, 215 (*Empis*).—Ciudad in Durango, Mex.

MELANDER, Mon. Empid., i, 281.

setigera COQUILLET, Proc. Ent. Soc. Wash., v, 272.—Baracoa, Cuba.

suavis LOEW, Cent., viii, 56 (*Empis*).—Mex.

- WHEELER and MELANDER, *Biologia*, Dipt., 1, 368, oc. in Chilpancingo, Guerrero, Mex.
 MELANDER, *Mon. Empid.*, 1, 280, redesc.
superba LOEW, *Wien. Ent. Monatsch.*, v, 36 (*Empis*); *Cent.*, VIII, 57 (id.).—Cuba.
 MELANDER, *Mon. Empid.*, 1, 279.
violacea LOEW, *Cent.*, VIII, 55 (*Empis*).—Mex.
 ? MELANDER, *Mon. Empid.*, 1, 278, f. 103, 104, doubtfully identified.—Mex.
viridis COQUILLET, *Revis. Empid.*, 395 (*Hilara*).—Jamaica.
 MELANDER, *Mon. Empid.*, 1, 269 (id.).—Jamaica. (Gen. ref. by Melander, in litt.)

ITEAPHILA.

- ZETTERSTEDT, *Ins. Lapp.*, 541, 1840; *Dipt. Scand.*, 1, 258, 1842.
 LOEW, *Beschreib. Europ. Dipteren*, II, 250, 1871.
 SCHINER, *Fauna Austr.*, 1, 110, 1862.
 MELANDER, *Mon. Empid.*, 1, 331, 1902.
macquartii ZETTERSTEDT, *Ins. Lapp.*, 541; *Dipt. Scand.*, 1, 258.—N. Sweden.
 OSTEN SACKEN, *Cat.*, 101, oc. in N. A.—White Mts., N. H., and Quebec.
 MELANDER, *Mon. Empid.*, 1, 331.
orchestris MELANDER, *Mon. Empid.*, 1, 354.—Las Vegas Range, N. M.
 ? *peregrina* MELANDER, *Mon. Empid.*, 1, 331, f. 97.—San Diego Co., Cal.; query by Mel.

MICROPHORUS.

- MACQUART, *Dipt. Nord France*, 140, 1827; *Hist. Nat. Dipt.*, 1, 345, 1834.
 MEIGEN, *Syst. Besch.*, VI, 335, 1830 (*Trichina*).
 SCHINER, *Fauna Austr.*, 1, 79, 1862.
 LOEW, *Schles. Zeit. f. Ent.*, 1863.
 MELANDER, *Mon. Empid.*, 1, 332, 1902 (in litt. he includes his species of *Holoclera* also).
Note.—There is great divergence of views between Coquillett and Melander as to the limits of *Microphorus*, *Anthalia*, and *Euthyneura*. Coquillett, in *Proc. Ent. Soc. Wash.*, v, 263, has distributed the species according to his ideas. I have been guided mainly by Melander's views, communicated to me in letters.
atratus COQUILLET, see *Euthyneura*.
bilineatus MELANDER, *Mon. Empid.*, 1, 334, f. 99 (*Holoclera*).—Opelousas, La.
crocatus COQUILLET, see *Euthyneura*.
drapetoides WALKER, *List*, III, 489.—Martin Falls, Canada.
 MELANDER, *Mon. Empid.*, 1, 332, quotes desc.
flavipilosus COQUILLET, see *Euthyneura*.
gilvihirtus COQUILLET, see *Euthyneura*.
obscurus COQUILLET, *Proc. Wash. Ent. Soc.*, v, 268.—Franconia, N. H.
palliatius COQUILLET, *Jour. N. Y. Ent. Soc.*, x, 140 (*Sciodromia*).—Tabasco, Mex.
ravidus COQUILLET, *Revis. Empid.*, 409.—S. Cal.
 MELANDER, *Mon. Empid.*, 1, 333 (*Holoclera*).
sycophantor MELANDER, *Mon. Empid.*, 1, 334 (*Holoclera*).—Idaho.

EUTHYNEURA.

- MACQUART, *Annales*, 1836, 517.
 SCHINER, *Fauna Austr.*, 1, 82, 1862.

MELANDER, Mon. Empid., I, 256, def. and table, 1902; the latter amended, p. 347; in litt. includes *Anthalia* as a synonym, following Schiner.

COQUILLETT, Proc. Ent. Soc. Wash., v, 263, 1903, radically disagrees and does not recognize the genus from North America.

aperta MELANDER, Mon. Empid., I, 348.—Cloudercroft, N. M.

atrata COQUILLETT, Proc. Wash. Acad. Sci., II, 412 (*Microphorus*); Proc. Ent. Soc. Wash., v, 263, refers to *Anthalia*.—Kadiak, Alaska.

MELANDER, Mon. Empid., I, 333 (*Holoclera*).

atripes MELANDER, Mon. Empid., I, 349.—Los Angeles Co., Cal.

bucinator MELANDER, Mon. Empid., I, 348.—Pa.

bulbosa MELANDER, Mon. Empid., I, 349.—Chester Co., Pa.

crocata COQUILLETT, Proc. Wash. Acad. Sci., II, 413 (*Microphorus*).—Sitka. Gen. ref. by Melander, in litt.

flava COQUILLETT, Proc. Ent. Soc. Wash., v, 268 (*Anthalia*).—Mt. Washington, N. H.

SLOSSON, Ent. News, XIV, 266, habits of adult.

flavipilosa COQUILLETT, Proc. Wash. Acad. Sci., II, 413 (*Microphorus*); Proc. Ent. Soc. Wash., v, 263, same gen. ref.—Lowe Inlet, Br. Col.

MELANDER, Mon. Empid., I, 257.

gilvihirta COQUILLETT, Proc. Ent. Soc. Wash., v, 268 (*Microphorus*).—Francia, N. H.

Gen. ref. by Melander, in litt.

nura MELANDER, Mon. Empid., I, 349.—Mass.

stentor MELANDER, Mon. Empid., I, 348.—Cloudercroft, N. M.

stigmatalis COQUILLETT, Proc. Ent. Soc. Wash., v, 268 (*Anthalia*).—Port Renfrew, B. C.

CYRTOMA.

MEIGEN, Syst. Besch., IV, I, 1824.

SCHINER, Fauna Austr., I, 76, 1862.

MELANDER, Mon. Empid., I, 335, 1902, def. and table of species.

COQUILLETT, Proc. Ent. Soc. Wash., v, 246, proposes to replace *Cyrtoma* with *Bicellaria* MACQ. I do not feel sure of his data, and hence make no change.

femorata LOEW, Cent., v, 69.—N. H.

MELANDER, Mon. Empid., I, 335.

halteralis LOEW, Cent., II, 46.—D. C.

MELANDER, Mon. Empid., I, 335.—Wis.

longipes LOEW, Cent., II, 47.—Ill.

MELANDER, Mon. Empid., I, 336, f. 71.—Mass., N. H., Wis., Ill., Wyo., N. M.

White Mts., N. H.—Slosson; Pa.—O. S.

pilipes LOEW, Cent., II, 48.—Ill.

COQUILLETT, Proc. Wash. Acad. Sci., II, 412, oc. in Kukak Bay and Popof Id., Alaska. *

MELANDER, Mon. Empid., I, 336.

White Mts., N. H.—Slosson.

procera LOEW, Cent., v, 70.—Sitka, Alaska.

MELANDER, Mon. Empid., I, 335.

RHAMPHOMYIA.

MEIGEN, Syst. Besch., III, 42, 1822.

SCHINER, Fauna Austr., I, 96, 1862.

COQUILLETT, Revis. Empid., 410, 1895, table of species; in Proc. Ent. Soc. Wash., v, 252, he proposes to substitute *Macrostomus* WIED. for *Rhamphomyia*. I do not adopt this, as there is considerable risk of error in the old determination upon which it depends.

abditata COQUILLETT, Revis. Empid., 430.—Wash.

adversa COQUILLETT, Proc. Wash. Acad. Sci., 11, 418.—Sitka, Yakutat, and Orca, Alaska.

agasicles WALKER, List, III, 499.—Martin Falls, Canada.

albata COQUILLETT, Proc. U. S. N. M., XXV, 103.—Williams, Ariz.

albipilosa COQUILLETT, Proc. Wash. Acad. Sci., 11, 418.—Berg Bay, Alaska.

americana WIEDEMANN, Auss. Zw., 11, 8.—N. A.

amplicella COQUILLETT, Revis. Empid., 431.—S. Cal.

amplipedis COQUILLETT, Revis. Empid., 422.—Mass.

anaxo WALKER, List, III, 500.—Martin Falls, Canada.

angustipennis LOEW, Cent., 1, 55.—N. Y. N. J.—Smith Cat.

anthracodes COQUILLETT, Proc. Wash. Acad. Sci., 11, 420.—Metlakahtla and Sitka, Alaska.

✓ **aperta** LOEW, Cent., 11, 27.—Ill.

arcuata COQUILLETT, Revis. Empid., 421.—Mass.

atrata COQUILLETT, Proc. Wash. Acad. Sci., 11, 420.—Sitka.

avida COQUILLETT, Revis. Empid., 425.—Mass.

barypoda COQUILLETT, Proc. Wash. Acad. Sci., 11, 417.—Sitka, Yakutat, Virgin Bay, and Kadiak, Alaska.

basalis LOEW, Cent., v, 54.—N. H.

COQUILLETT, Revis. Empid., 410, desc. of male, etc.—N. H.

biflata COQUILLETT, Revis. Empid., 424.—Cal.

brevis LOEW, Cent., 1, 52.—D. C.

californica COQUILLETT, Revis. Empid., 420.—Cal.

• **candicans** LOEW, Cent., v, 61.—N. H. N. J.—Smith Cat.

ciliata COQUILLETT, Revis. Empid., 428.—N. H.

cilipes SAY, Jour. Acad. Sci. Phil., III, 95; Compl. Works, III, 83 (*Empis*).—Ohio.

WIEDEMANN, Auss. Zw., 11, 7.

cinefacta COQUILLETT, Proc. Wash. Acad. Sci., 11, 419.—Sitka.

cineracea COQUILLETT, Proc. Wash. Acad. Sci., 11, 416.—Sitka, Kukak Bay, Popof Id., and Juneau, Alaska.

clauda COQUILLETT, Proc. U. S. N. M., XXIII, 610.—Clementon, N. J.; Mt. Washington, N. H.

clavator COQUILLETT, Proc. U. S. N. M., XXIII, 611, correction and change of name; Proc. Wash. Acad. Sci., 11, 421 (*macrura*, preoc.).—Sitka, Yakutat, Virgin Bay, Orca, all in Alaska.

clavigera LOEW, Cent., 1, 53.—N. Y.

colorata COQUILLETT, Revis. Empid., 420.—Texas.

compta COQUILLETT, Revis. Empid., 423.—U. S. N. J.—Smith Cat.

conjuncta LOEW, Cent., 1, 56.—D. C.

cophas WALKER, List, III, 499.—N. Y.

corvina LOEW, Cent., 1, 51.—N. Y.

COQUILLETT, Proc. Wash. Acad. Sci., 11, 414, oc. in Alaska, D. C., Pa., and N. C.

crassinervis LOEW, see *sordida*.

cyanogaster WHEELER and MELANDER, Biologia, Dipt., 1, 371.—Omiteme in Guerrero, Mex.

- dana* WALKER, List, III, 502.—Martin Falls, Canada.
- daria* WALKER, List, III, 503.—N. Y.
- debilis* LOEW, Cent., I, 45.—Saskatchewan R., Canada.
- dimidiata* LOEW, Cent., I, 36.—Md., Mass.
- disparilis* COQUILLETT, Proc. Wash. Acad. Sci., II, 415.—Yakutat and Virgin Bay, Alaska.
- diversa* COQUILLETT, Proc. U. S. N. M., XXIII, 611.—Clementon, N. J.
- duplicis* COQUILLETT, Revis. Empid., 424.—Cal.
- ecetra* WALKER, List, III, 500.—Ga.
- effera* COQUILLETT, Revis. Empid., 427.—Locality omitted.
- exigua* LOEW, Cent., II, 32.—D. C., Ill.
- expulsa* WALKER, Trans. Ent. Soc., n. ser., IV, 148.—U. S. White Mts., N. H.—Slosson.
- ficana* WALKER, List, III, 501.—Martin Falls, Canada.
- fimbriata* COQUILLETT, Revis. Empid., 429.—Cal.
- flavirostris* WALKER, List, III, 501.—Martin Falls, Canada. Alaska—Coquillett.
- flexuosa* COQUILLETT, Revis. Empid., 433.—Col.
- frontalis* LOEW, Cent., II, 28.—Ill.
- fumosa* LOEW, Cent., I, 39.—N. Y., D. C.
- furcifer* WHEELER and MELANDER, Biologia, Dipt., I, 371.—Omitteme in Guerrero, Mex.
- geniculata* BIGOT, Annales, 1889, 134.—Cal.
 "Preoc. and better be cancelled"—Coq., Rev. Emp., 410.
- gilvipes* LOEW, Cent., I, 48.—N. Y., Ill. White Mts., N. H.—Slosson.
- gilvipilosa* COQUILLETT, Revis. Empid., 434.—Ill.
- glabra* LOEW, Cent., I, 41.—Va., Ill. D. C.—O. S.; N. J.—Smith Cat.
- glauca* COQUILLETT, Proc. Wash. Acad. Sci., II, 416.—Metlakahtla and Berg Bay, Alaska.
- gracilis* LOEW, Cent., I, 43.—Pa. N. J.—Smith Cat.; White Mts., N. H.—Slosson.
- hirtipes* LOEW, Cent., V, 59.—N. H.
- hirtula* ZETTERSTEDT, Dipt. Scand., I, 421, obs.—Greenland.
 LUNDBECK, Dipt. Grœnl., I, 298, full desc.—Greenland.
- impedita* LOEW, Cent., II, 31.—Ill., D. C.
- incompleta* LOEW, Cent., III, 31.—D. C.
- insecta* COQUILLETT, Revis. Empid., 426.—Texas.
- irregularis* LOEW, Cent., V, 60.—N. H.
 COQUILLETT, Proc. Wash. Acad. Sci., II, 414, oc. in Col. and Kukak Bay, Alaska.
- lævigata* LOEW, Cent., I, 37.—Nebr. Montreal—Chagnon.
- leucoptera* LOEW, Cent., I, 62.—D. C. N. J.—Smith Cat.
- limata* COQUILLETT, Proc. Wash. Acad. Sci., II, 417.—Popof Id., Alaska.
- limbata* LOEW, Cent., I, 60.—D. C.
 COQUILLETT, Proc. Wash. Acad. Sci., II, 414, oc. in Alaska and Ill.
 See *Megacyttarus argenteus* BIGOT.
- litrata* LOEW, Cent., I, 61.—D. C.
- longicauda* LOEW, Cent., I, 38.—D. C. N. J.—Smith Cat.
- longicornis* LOEW, Cent., I, 47.—D. C.
- longipennis* LOEW, Cent., I, 46.—D. C. White Mts., N. H.—Slosson.
- loripedis* COQUILLETT, Revis. Empid., 419.—Cal.
- luctifera* LOEW, Cent., I, 50.—N. Y.
- luctuosa* LOEW, Cent., II, p. 290, change of name; Cent., II, 30 (*lugens*, preoc.).
 —Cal.

- luteiventris* LOEW, Cent., v, 57.—N. H. N. J.—Smith Cat.
macilenta LOEW, Cent., v, 55.—N. H. N. J.—Smith Cat.; White Mts., N. H.—Slosson.
macrura COQUILLET, see *clavator*.
mallos WALKER, List, III, 502.—Martin Falls, Canada.
manca COQUILLET, Revis. Empid., 427.—N. C.
 HOWARD, Proc. Wash. Acad. Sci., II, 561, note on habits. N. J.—Smith Cat.
minytus WALKER, List, III, 502.—Martin Falls, Canada.
 N. J.—Smith Cat.; Alaska—Coq.
mutabilis LOEW, Cent., II, 26.—Ill. White Mts., N. H.—Slosson.
nana LOEW, Cent., I, 64.—Md. N. J.—Smith Cat.
nasoni COQUILLET, Revis. Empid., 423.—Ill.
nigricans LOEW, Cent., v, 58.—N. H. White Mts., N. H.—Slosson.
 Axton, N. Y.—M. and H.
nigrita ZETTERSTEDT, Ins. Lapp., 567.—Europe.
 STÆGER, Grœnl. Antl., 357, oc. in Greenland.
 HOLMGREN, Ins. Nordgrœnl., 100, same.
 FABRICIUS, O., Fauna Grœnl., 211 (*Empis borealis*).—Greenland.
 [Schjødte.]
nigrita BIGOT, Annales, 1889, 133.—Cal.
 COQUILLET, Revis. Empid., 410, note.
nitidivittata MACQUART, Dipt. Exot., Suppl., I, 97.—Galveston, Tex.
otiosa COQUILLET, Revis. Empid., 425.—Col.
pachymera BIGOT, Annales, 1889, 133.—Cal.
 COQUILLET, Revis. Empid., 410, note.
parva COQUILLET, Rev. Empid., 433.—Mass.
pectinata LOEW, Cent., I, 49.—D. C.
pectoris COQUILLET, Revis. Empid., 420.—St. Catharine Id., Ga.
phemius WALKER, List, III, 500.—Martin Falls, Canada.
piligeronis COQUILLET, Revis. Empid., 432.—Ill.
polita LOEW, Cent., II, 29.—Ill., D. C. N. J.—Smith Cat.
priapulul LOEW, Cent., I, 54.—Md. N. J.—Smith Cat.
pulchra LOEW, Cent., I, 40.—N. Y. N. J.—Smith Cat.
pulla LOEW, Cent., I, 44.—Conn. N. J.—Smith Cat.; Montreal—Chagnon.
 SLOSSON, Ent. News, XIV, 265, habits of adult.
pusio LOEW, Cent., I, 63.—Md. N. J.—Smith Cat.
quinquelineata SAY, Jour. Acad. Sci. Phil., III, 95; Compl. Works, II, 82 (*Empis*).—Ind.
 WIEDEMANN, Auss. Zw., II, 7.
rava LOEW, Cent., II, 25.—Ill.
 COQUILLET, Revis. Empid., 410, notes.
ravida COQUILLET, Revis. Empid., 418.—Ill., Tex., N. M.
rufirostris SAY, Jour. Acad. Sci. Phil., III, 159; Compl. Works, II, 355.—Ind.
rustica LOEW, Cent., v, 56.—N. H. Montreal—Chagnon; White Mts., N. H.—Slosson. Axton, N. Y.—M. and H.
scaurissima WHEELER, Ent. News, VII, 189, figs.—Cal.
scolopacea SAY, Jour. Acad. Sci. Phil., III, 96; Compl. Works, II, 83 (*Empis*).—Pa.
 WIEDEMANN, Auss. Zw., II, 8. N. J.—Smith Cat.
scutellaris COQUILLET, Revis. Empid., 429.—N. Cal.
sellata LOEW, Cent., I, 42.—D. C.

- setosa* COQUILLETT, Revis. Empid., 426; Proc. Wash. Acad. Sci., II, 419, oc. in Alaska, and correction of orig. desc.—N. H.; Alaska, several places.
White Mts., N. H.—Slosson.
- soccata* LOEW, Cent., I, 67.—Miss.
- sociabilis* WILLISTON, Kans. Univ. Quart., II, 76 (*Empis*).—Wash.
Common in N. Idaho; is a *Rhamphomyia*—J. M. A.
- sordida* LOEW, Cent., I, 58; *ibid.*, 59 (*crassinervis*).—D. C.; N. Y. [Coq.]
- stylata* COQUILLETT, Revis. Empid., 432.—Cal.
- sudigeronis* COQUILLETT, Revis. Empid., 431.—Cal.
- tersa* COQUILLETT, Revis. Empid., 422.—N. H. N. J.—Smith Cat.
- testacea* LOEW, Cent., II, 24.—Ill. Md., D. C.—O. S.
- tolteca* WHEELER and MELANDER, Biologia, Dipt., I, 371.—Guerrero, Mex.
- tristis* WALKER, Trans. Ent. Soc., n. ser., IV, 148.—U. S.
- umbilicata* LOEW, Cent., I, 65, 66 (*umbilicata* and *ungulata*).—Pa., Me.; Me.
"Umbilicata is wrongly attributed to Mexico in the Centuries"—O. S.
- SLOSSON, Ent. News, XIV, 268, habits of adult.
- umbrosa* LOEW, Cent., V, 53.—N. H. Montreal—Chagnon; Province of Quebec
—Fyles.
- unimaculata* LOEW, Cent., II, 33.—Ill. D. C.—O. S.
- valga* COQUILLETT, Revis. Empid., 428.—N. H.
- vara* LOEW, Cent., I, 57.—Nebr. N. J.—Smith Cat.
- villipes* COQUILLETT, Proc. Wash. Acad. Sci., II, 414.—Popof Id., Alaska.
- virgata* COQUILLETT, Revis. Empid., 430.—Mass.
Axton, N. Y.—M. and H.
- vittata* LOEW, Cent., II, 23.—Ill. N. J.—Smith Cat.; S. D.—J. M. A.

NEOCOTA.

- COQUILLETT, Revis. Empid., 434, 1895.
- weedii* COQUILLETT, Revis. Empid., 434.—Miss.

LONCHOPTERIDÆ.

LONCHOPTERA.

- MEIGEN, Illig. Mag., II, 272, 1803; Syst. Besch., IV, 105, 1824.
- ZETTERSTEDT, Dipt. Scand., VII, 2800, 1848.
- SCHINER, Fauna Austr., I, 243, 1862.
- lutea* PANZER, Fauna Germ., CVIII, 20.—Europe.
MEIGEN, Syst. Besch., IV, 107, 108 (the latter *rivalis*).
SCHINER, Fauna Austr., I, 243.
OSTEN SACKEN, Cat., 103, oc. in N. A.
MEIJERE, Zool. Jahrb., I4, vol. V, 87-132, 3 pl.; full discussion of the larva
(abstract in Illus. Zeitsch. f. Ent., VI, 61, 1901).
N. J.—Smith Cat.; White Mts., N. H.—Slosson.
- punctum* MEIGEN, Syst. Besch., IV, 110.—Europe.
WALKER, Ins. Brit., I, 223.
SCHINER, Fauna Austr., I, 244.
WEBSTER, Canad. Ent., 1900, 213, oc. in Ohio.
- riparia* MEIGEN, Syst. Besch., IV, 108.—Europe.
SCHINER, Fauna Austr., I, 244, notes.
OSTEN SACKEN, Cat., 118, oc. in N. A.
N. J.—Smith Cat.

PHORIDÆ.

BECKER, Die Phoriden, in Abhandlungen d. K. K. Zool.-Bot. Ges., I, 1-100, 5 plates, 1901, is an admirable monograph of the European members of the family.

BRUES, Monograph of the N. A. Phoridæ, in Trans. Amer. Ent. Soc., xxix, 331-404, 5 plates, describes the genera of the world and all the N. A. species, with a new generic arrangement. It is dated 1903, but really appeared in January, 1904. This would exclude it from the present catalogue, which closes with Jan. 1, 1904, but I deem it necessary to make an exception here, in order to avoid having this part of the work out of date on publication. There are full tables of genera and species, etc.; it is a very valuable work.

OSTEN SACKEN, Ent. Mo. Mag., sec. ser., xiii, 204, 1902, discusses the position of this family.

PHORA.

LATREILLE, Précis. car. gén. Ins., 1796; Hist. nat. Crust. et Ins., iii, 464, 1802, and xiv, 394, 1804. In 1802 he gives *Musca aterrima* as type.

MEIGEN, Syst. Besch., vi, 210, 1830, inclusive of *Trineura*.

SCHINER, Fauna Austr., ii, 335, 1864.

ALDRICH, Canad. Ent., xxiv, 142, 1892.

COQUILLET, Canad. Ent., xxvii, 104, 1895.

LINTNER, 10th N. Y. Rept., 404, 1895, literature of *Phora*.

WICKHAM, Canad. Ent., xxvi, 41, rearing of *Phora* sp. from pupa of *Tropisternus glaber*.

BRUES, Mon. Phoridæ, 339, 1904, def. and table of species, in restricted sense.

cimbicis ALDRICH, Canad. Ent., xxiv, 143, fig.—Brookings, S. D.; reared from cocoons of *Cimbex americana*.

BRUES, Mon. Phoridæ, 348, f. 15.—Mass.; Toronto, Can.

comstocki ALDRICH in Brues, Mon. Phoridæ, 346, f. 12.—Ithaca, N. Y.

cornuta BIGOT, in Sagra's Cuba, 827.—Cuba.

divaricata ALDRICH, Trans. Ent. Soc. Lond., 1896, 437.—St. Vincent, W. I.

BRUES, Mon. Phoridæ, 349, types redesc.; oc. in Granada, W. I.

var. *perplexa* BRUES, Mon. Phoridæ, 350.—Ga., Fla. This is the *Phora incisuralis* of Coquillett, Canad. Ent., xxvii, 104. [Brues.]

fratercula BRUES, Mon. Phoridæ, 341, f. 3.—Jackson's Lake, Wyo.

grœnlandica LUNDBECK, Dipt. Grœnl., ii, 307, fig.—Greenland.

BRUES, Mon. Phoridæ, 350, transl. and fig. reproduced.

incisuralis LOEW, Cent., vii, 98.—D. C.

JOHNSON, Dipt. of Florida, oc. and note on female.—Tick Id., Fla.

BRUES, Mon. Phoridæ, 348, f. 6.—Fla., Ga., La.

luggeri ALDRICH, Canad. Ent., xxiv, 145, fig.—Minn.

BRUES, Mon. Phoridæ, 347, f. 13.—Kans., Pa., Mass.

microcephala LOEW, Cent., vii, 96.—D. C.

BRUES, Mon. Phoridæ, 342, type redesc.

multiseriata ALDRICH in Brues, Mon. Phoridæ, 345, f. 9 and 10.—Lawrence, Kans.; Ithaca, N. Y.

nitidifrons BRUES, Mon. Phoridæ, 347, f. 14.—Mass., N. Y., Pa.

olympiæ ALDRICH in Brues, Mon. Phoridæ, 344, f. 6.—Olympia, Wash.

pachyneura LOEW, Cent., vii, 97.—Alaska.

BRUES, Mon. Phoridæ, 341, f. 12.—Idaho, Wis., Wash., Montreal.

scutellata BRUES, Mon. Phoridæ, 344, f. 8 and 11.—Grenada, W. I.

- spinipes** COQUILLETT, Canad. Ent., xxvii, 105.—Conn.
 BRUES, Mon. Phoridæ, 343, f. 5, 6.—Moscow, Ida.; Wash.
 Ohio—Webster.
- thoracica** MEIGEN, Klassif., 313 (*Trincura*); Syst. Besch., vi, 214.—Europe.
 FALLÉN, Phytomyzides, 6 (*Trincura*).
 ZETTERSTEDT, Ins. Lapp., 795 (id.); Dipt. Scand., vii, 2852 (id.).
 SCHINER, Fauna Austr., ii, 342.
 BECKER, Die Phoriden, 20.
 BRUES, Mon. Phoridæ, 342, f. 4, desc. and oc. in N. A.—White Mts., N. H.
- venusta** COQUILLETT, Canad. Ent., xxvii, 107.—Mass.
 BRUES, Mon. Phoridæ, 346, desc. quoted.

HYPOCERA.

- LLOY, Atti Inst. Venet., 1864, 78 (*Hypocera* and *Gymnocera*).
 BRUES, Mon. Phoridæ, 351, 1901, def. and table of species.
- clavata** LOEW, Cent., vii, 95 (*Phora*).—D. C.
 MOTTER, Jour. N. Y. Ent. Soc., vi, 223, oc. in human graves (*Phora*).
 BRUES, Mon. Phoridæ, 355, f. 22, 23.—N. H., Mass., Pa., Kans.
- ehrmanni** ALDRICH in Brues, Mon. Phoridæ, 353, f. 20.—Pittsburgh, Pa.
- femorata** MEIGEN, Syst. Besch., vi, 213 (*Phora femorata* and *flavimana*).—Europe.
 ZETTERSTEDT, Dipt. Scand., vii, 2886 (*Trincura*).
 SCHINER, Fauna Austr., ii, 339 (id.).
 SLOSSON, Ent. News, oc. in N. A.—White Mts., N. H. (id.).
 BECKER, Die Phoriden, 41 (id.).
 HOWARD, Proc. Wash. Acad. Sci., ii, 598, oc. and note (*Phora*).—W. Va.
 BRUES, Mon. Phoridæ, 354, f. 21.—N. H., Mass., R. I.
- grenadensis** BRUES, Mon. Phoridæ, 356, f. 24.—Grenada, W. I.
- johnsoni** BRUES, Mon. Phoridæ, 352, f. 18, 19.—Riverton, N. J.
- mordellaria** FALLÉN, Phytomyzides, 6 (*Trincura*).—Europe.
 MEIGEN, Syst. Besch., vi, 212 (*Phora*).
 MACQUART, Hist. Nat. Dipt., ii, 630 (id.).
 ZETTERSTEDT, Dipt. Scand., vii, 2883 (*Trincura*).
 SCHINER, Fauna Austr., ii, 339 (*Phora*).
 COQUILLETT, Canad. Ent., xxvii, 104, oc. in N. A. (id.).
 BECKER, Die Phoriden, 40 (id.).
 BRUES, Mon. Phoridæ, 355, not seen from N. A.

APHIOCHÆTA.

- BRUES, Mon. Phoridæ, 337, 357, 1904, diagnosis and table of species; the definition of the genus is accidentally omitted.
- agarici** LINTNER, 10th N. Y. Report, 399, 406, plate (*Phora*).—N. Y.; the larvæ feed in edible mushrooms, *Agaricus* spp.
 ALDRICH, Canad. Ent., xxiv, 141, fig. (*Phora setacea*, female; the male being a different species, retains the name *setacea*).—Brookings, S. D.; larvæ reared from cocoons of *Cimbex americana*.
 BRUES, Mon. Phoridæ, 369, f. 41, no locality.
 N. J.—Smith Cat.
- albidihalteris** FELT, in Lintner's 12th N. Y. Rept., 228 (*Phora*).—New Brunswick, N. J.; reared from mushrooms.
 BRUES, Mon. Phoridæ, 368.—N. J.
- atlantica** BRUES, Mon. Phoridæ, 362, f. 30.—N. J., Pa., Mass.

- aurea** ALDRICH, Trans. Ent. Soc. Lond., 1896, 437 (*Phora*).—St. Vincent, W. I. COQUILLET, Proc. U. S. N. M., xxii, 253, oc. in Porto Rico (*Phora*).
BRUES, Mon. Phoridæ, 365, f. 35.—Grenada, W. I.
Lawrence, Kans., shown me by Kahl.
- cata** MELANDER and BRUES, Biol. Bull., v, 16, f. 5 (*Phora*).—Woods Hole, Mass., breeding in nests of *Halictus pruinosus* RBTSN.
BRUES, Mon. Phoridæ, 371, desc. quoted.
- epeiræ** BRUES, Psyche, June, 1902, 351, fig. (*Phora*); Mon. Phoridæ, 358, f. 25.
—Austin, Texas, bred from eggs of a spider, *Epeira* sp.; La., Fla., Pa.
- fasciata** FALLÉN, Phytomyzides, 7 (*Trincura*).—Europe.
ZETTERSTEDT, Dipt. Scand., vii, 2879 (id.).
CURTIS, Brit. Entom., 437 (*Phora atricapilla*). [Schiner.]
SCHINER, Fauna Austr., ii, 344 (*Phora*).
COQUILLET, Canad. Ent., xxvii, 104, oc. in N. A. (*Phora*).
BECKER, Die Phoriden, 50 (*Phora*).
BRUES, Mon. Phoridæ, 360, desc.; not seen from N. A.
N. J.—Smith Cat.; White Mts., N. H.—Slosson; Fla.—Johnson; St. Vincent, W. I.—Aldrich.
- flava** FALLÉN, Phytomyzides, 7 (*Trincura*).—Europe.
ZETTERSTEDT, Dipt. Scand., vii, 2876 (*Trincura*).
SCHINER, Fauna Austr., ii, 343 (*Phora*).
BECKER, Die Phoriden, 54 (id.).
BRUES, Mon. Phoridæ, 361, f. 29.—Wis., N. J.
- fungicola** COQUILLET, Canad. Ent., xxvii, 106 (*Phora*); Proc. Wash. Acad. Sci., ii, 437, oc.—Las Cruces, N. M., bred from the fungus *Trametes pecki*; Alaska and N. J.
N. J.—Smith Cat.; White Mts., N. H.—Slosson; St. Vincent, W. I.—Aldrich.
- furtiva** ALDRICH, Trans. Ent. Soc. Lond., 1896, 436 (*Phora*).—St. Vincent, W. I.
BRUES, Mon. Phoridæ, 367, f. 39.—St. Vincent, W. I.
- giraudii** EGGER, Verh. Zool.-Bot. Ges., 1862, 1235 (*Phora*).—Europe; reared from cocoons of *Cimbex variabilis*.
SLOSSON, Ent. News, vi, 7, oc. in N. A.—White Mts., N. H. (id.).
BECKER, Die Phoriden, 58 (id.).
BRUES, Mon. Phoridæ, 366, desc.; not seen from N. A.
- halictorum** MELANDER and BRUES, Biol. Bull., v, 14, 1902 (*Phora*).—Woods Hole, Mass., breeding in nests of *Halictus pruinosus* RBTSN.
BRUES, Mon. Phoridæ, 366, f. 37.
- lutea** MEIGEN, Syst. Besch., vi, 219, 220 (*Phora sutphuripes*, *bicolor*, *flava*, *lutea*).—Europe. [Becker.]
FALLÉN, Phytomyzides, 7 (var. of *Trincura flava*).
MACQUART, Hist. Nat. Dipt., ii, 628 (*Phora*).
ZETTERSTEDT, Ins. Lapp., 797 (*Trincura*); Dipt. Scand., vii, 2877 (id.).
BECKER, Die Phoriden, 54 (*Phora*).
BRUES, Mon. Phoridæ, 362, f. 31, oc. in N. A. and desc.—Opelousas, La.; Wis.
- magnipalpis** ALDRICH, Trans. Ent. Soc. Lond., 1896, 438 (*Phora*).—St. Vincent, W. I.
BRUES, Mon. Phoridæ, 365, f. 36.—Grenada, W. I.
- minuta** ALDRICH, Canad. Ent., xxiv, 146, fig. (*Phora*).—Brookings, S. D.; bred from cocoons of *Cimbex americana*.
BRUES, Mon. Phoridæ, 366, f. 38.—Mass., N. J., N. Y., Ohio, Ida., Cal. White Mts., N. H.—Slosson.

nigriceps LOEW, Cent., vii, 99 (*Phora*).—D. C.

COMSTOCK, Dept. Agr. Rept., 1879, 208-211 (*Phora aletiae*).—Southern States; reared from pupæ of the Cotton Worm, *Aletia argillacea*.

RILEY, 4th Rept. U. S. Ent. Comm., 116-119, discusses habits—not a parasite (*Phora aletiae*).

ALDRICH, 21st Report Dept. Geol. Ind., 1896, 190, oc. in cavern in Ind. (*Phora*).

BRUES, Mon. Phoridæ, 363, f. 34.—Mass., Ill., Tenn., N. Y., Texas; in Texas bred from an artificial nest of *Pogonomyrmex barbatus* by Dr. Wm. M. Wheeler.

obscura BRUES, Mon. Phoridæ, 360, f. 27.—St. Vincent, W. I.

picta LEHMANN, Hamb. Observ., 1822, 43, pl. 1, f. 6 (*Phora*).—Europe.

ZETTERSTEDT, Ins. Lapp., 797 (*Trineura interrupta*); Dipt. Scand., vii, 2878 (id.). [BERGROTH, Wien. Ent. Zeit., 1896, 112.]

SCHINER, Fauna Austr., ii, 337 (*Phora interrupta*).

COQUILLETT, Canad. Ent., xxvii, 104, oc. in N. A. (*Phora interrupta*).

BECKER, Die Phoriden, 52 (*Phora*).

BRUES, Mon. Phoridæ, 361, f. 28.—Wis.

N. J.—Smith Cat.; White Mts., N. H.—Slosson; St. Vincent, W. I.—Aldrich.

pulicaria FALLÉN, Phytomyzides, 7 (*Trineura*).—Europe.

MEIGEN, Syst. Besch., vi, 217 (*Phora*).

ZETTERSTEDT, Ins. Lapp., 795 (*Trineura*); Dipt. Scand., vii, 2859 and 2873 (*Trineura pulicaria* and *pumila*).

SCHINER, Fauna Austr., ii, 341 (*Phora*).

STROBL, Wien. Ent. Zeitung, xi (*Phora pulicaria*, *nigra*, *luctuosa*, *pumila*). [Becker.]

BECKER, Die Phoriden, 62 (*Phora*).

BRUES, Mon. Phoridæ, 371, f. 45, oc. in N. A. and desc.—Mass., La., S. D., Ida., Cal.

pygmæa ZETTERSTEDT, Dipt. Scand., vii, 2860 (*Trineura*).—Europe.

EGGER, Verh. Zool.-Bot. Ges., 1862, 1236 (*Phora brachyneura*).

SCHINER, Fauna Austr., ii, 344 (id.).

STROBL, Wien. Ent. Zeit., xi, 196 (id.).

BECKER, Die Phoriden, 49 (*Phora*).

BRUES, Mon. Phoridæ, 359, f. 26.—Ida., Cal., Texas.

rostrata MELANDER and BRUES, Biol. Bull., v, 15, 1903 (*Phora*).—Woods Hole, Mass.; about the burrows of *Halictus pruinosus* REITZ.

BRUES, Mon. Phoridæ, 370, f. 43, 44, redesc. type.

rufipes MEIGEN, Klassif., 313, pl. xv, f. 23. (*Trineura*); Syst. Besch., vi, 216 (*Phora rufipes* and *annulata*).—Europe.

FABRICIUS, Syst. Antl., 336 (*Trineura*).

FALLÉN, Phytomyzides, 6 (*Trineura vulgaris*). [Meigen.]

LATREILLE, Gen. Ins., iv, 360 (*Phora pallipes*).

MACQUART, Hist. Nat. Dipt., ii, 627 (*Phora pallipes* and *annulata*).

DUFOUR, Mém. Soc. R. Paris, 1840, 54, pl. iii, f. 107-110 (*Phora pallipes*).

ZETTERSTEDT, Ins. Lapp., 795 (*Trineura*); Dipt. Scand., vii, 2857 (id.).

SCHINER, Fauna Austr., ii, 340 (*Phora*).

STROBL, Wien. Ent. Zeit., xi, (*Phora rufipes* and *heracleella*). [Becker.]

COQUILLETT, Amer. Naturalist, xxxi, 386 (*Phora*), oc. in N. A.—Mammoth Cave, Ky.; Proc. Wash. Acad. Sci., ii, 437 (id), oc. in Alaska.

BECKER, Die Phoriden, 59 (*Phora*).

BRUES, Mon. Phoridæ, 368, f. 40.—Mass., Pa., Mich., N. Y., Ill., Ida.

White Mts., N. H.—Slosson; N. J.—Smith Cat.

scalaris LOEW, Cent., vii, 100 (*Phora*).—Cuba.

BRUES, Mon. Phoridæ, 364, f. 33.—St. Vincent and Grenada, W. I.; Pa. N. J.—Smith Cat.

setacea ALDRICH, Canad. Ent., xxiv, 144, fig. (*Phora*—the female there described belongs to *agarici*).—Brookings, S. D.; bred from cocoons of *Cimbex americana*.

BRUES, Mon. Phoridæ, 370, f. 42.—D. C.

APOCEPHALUS.

COQUILLET, Proc. Ent. Soc. Wash., iv, 501, 1901.

BRUES, Mon. Phoridæ, 372, 1904.

pergandei COQUILLET, loc. cit., figs.—Cabin John Bridge, Md.; the larvæ are internal parasites of the ant *Camponotus pennsylvanicus*; in the observed instance it ate out the head after separating it from the body.

BRUES, Mon. Phoridæ, 373, f. 47, 48.—Frankford, Pa., and Austin, Texas; at the latter place found in a nest of *Camponotus maculatus* var. *sansabeanus* BKLY.

wheeleri BRUES, Mon. Phoridæ, 373, f. 49.—Pine Lake, Wis.

TRINEURA.

MEIGEN, Illiger's Mag., ii, 276, 1803; Klassif., 312, 1804.

SCHINER, Fauna Austr., ii, 347, 1862.

BECKER, Die Phoriden, 78, 1901.

BRUES, Mon. Phoridæ, 375, 1904, def. and table of species.

aterrima FABRICIUS, Syst. Ent., iv, 334, 1794 (*Musca*); Syst. Antl., 323 (*Te-phritis*).—Europe.

COQUEBERT, Illust. Icon. Ins., pl. xxiv, f. 3 (*Musca*).

LATREILLE, Hist. Nat. Crust. et Ins., iii, 464, 1802, type of *Phora*; xiv, 394 and Dict. d'Hist. Nat., xxiv, 197, both 1804 (*Phora*).

MEIGEN, Klassif., 313, pl. xv, f. 22 (*atra*); Syst. Besch., vi, 224, 225 (*aterrima* and *stictica*).

FALLÉN, Phytomyzides, 7 (*atra*).

WALKER, List, iv, 1138 (*Phora*), oc. in N. A.—Martin Falls, Canada.

SCHINER, Fauna Austr., ii, 349.

STROBL, Wien. Ent. Zeit., xi, 204, makes *stictica* a var.

BECKER, Die Phoriden, 80.

BRUES, Mon. Phoridæ, 377, f. 50.—Mass. to Kans. and Texas.

Alaska and N. H.—Coquillett; White Mts., N. H.—Slosson.

montana BRUES, Mon. Phoridæ, 378, f. 52, 53.—Magdalena Mts., N. M.; Kans.

velutina MEIGEN, Syst. Besch., vi, 224 (*Phora*).—Europe.

BECKER, Die Phoriden, 80.

BRUES, Mon. Phoridæ, 378, f. 51.—Mass., Mich., Kans., Ida., Cal.

CONICERA.

MEIGEN, Syst. Besch., vi, 226, 1830.

SCHINER, Fauna Austr., ii, 335, 1864.

BECKER, Die Phoriden, 80, 1901.

BRUES, Mon. Phoridæ, 379, def. and table of species, 1904.

aldrichii BRUES, Mon. Phoridæ, 379, f. 54.—Juliaetta, Idaho.

atra MEIGEN, Syst. Besch., vi, 226, pl. LXIII, f. 13.—Europe. Also op. cit., 223 (*Phora dauci* and *albipennis*). [Becker.]

? WEBSTER, Ins. Life, II, 356, larvæ in human remains after burial (mentioned as *Conicera* sp.).—Indiana.

RILEY and HOWARD, Ins. Life, II, 351, note on preceding (id.).

KOWARZ, Fliegen Böhmens, 1894 (*Phora nickerli*). [Becker.]

BECKER, Die Phoriden, 81.

BRUES, Mon. Phoridæ, 380, f. 55, 56.—Mass., N. J., D. C., Canada, Mich., N. Y.

var. **neotropica** BRUES, Mon. Phoridæ, 380.—Grenada, W. I.

GYMNOPHORA.

MACQUART, Hist. Nat. Dipt., II, 631, 1835.

SCHINER, Fauna Austr., II, 346, 1864.

BECKER, Die Phoriden, 82, 1901.

BRUES, Mon. Phoridæ, 381, 1904.

arcuata MEIGEN, Syst. Beschreibung, VI, 215 and 222, pl. LXIII, f. 9 (*Phora fuliginosa* and *arcuata*).—Europe. [Becker.]

FALLÉN, Phytomyzides, 5 (*Trineura rufipes* MG.). [Meigen.]

HALIDAY, Entom. Mag., I, 179 (*Phora debilis*).

MACQUART, Hist. Nat. Dipt., II, 631.

SCHINER, Fauna Austr., II, 346.

OSTEN SACKEN, Cat., 212, oc. in N. A.

BECKER, Die Phoriden, 82.

BRUES, Mon. Phoridæ, 381, f. 57.—Kans., Tex., Wis., Pa., Mass.

White Mts., N. H.—Slosson.

PACHYNEURELLA.

BRUES, Mon. Phoridæ, 382, 1904.

venata ALDRICH, Trans. Ent. Soc. Lond., 1896, 436 (*Phora*).—St. Vincent, W. I.

BRUES, Mon. Phoridæ, 382, f. 58, 59, type redesc.

SYNEURA.

BRUES, Mon. Phoridæ, 383, 1904.

cocciphila COQUILLET, Canad. Ent., XXVII, 106 (*Phora*).—Magdalena, Victoria and Tamaulipas, Mex.; bred from larvæ infesting dead adults of *Icerya purchasi*.

BRUES, Mon. Phoridæ, 383, types redesc.

METOPINA.

MACQUART, Hist. Nat. Dipt., II, 666, 1835.

STROBL, Funde am Seitenst., 1880 (*Drepanophora*).

SIX, Tidschr. v. Ent., XXI, 126 (*Leptophora*).

BECKER, Die Phoriden, 83, syn. and desc., 1901.

BRUES, Mon. Phoridæ, 384, 1904.

pachycondylæ BRUES, Mon. Phoridæ, 384.—Austin, Texas; the larvæ live as commensals with those of the ant *Pachycondyla harpax*. The habits of the larvæ are described by Professor Wm. M. Wheeler in an illustrated article, "An Extraordinary Ant-Guest," in American Naturalist, Dec., 1901,—one of the most interesting contributions to knowledge that ever came under my notice.

COMMOPTERA.

- BRUES, Amer. Naturalist, xxxv, 344, 1901; Mon. Phoridae, 385, 1904.
solenopsidis BRUES, Amer. Naturalist, xxxv, 344, figs.; Mon. Phoridae, 386, brief desc.—Austin, Texas; in nests of *Solenopsis geminata* FABR.

ÆNIGMATIAS.

- MEINERT, Entom. Meddelelser, II, 213, 1890.
 BECKER, Die Phoriden, 89, 1901.
 COQUILLETT, Canad. Ent., xxxv, 20, notes.
 BRUES, Mon. Phoridae, 386, 1904.
schwarzii COQUILLETT, Canad. Ent., xxxv, 21.—Flagstaff, Ariz.
 BRUES, Mon. Phoridae, 387, quotes desc.

ECITOMYIA.

- BRUES, Amer. Naturalist, xxxv, 347, 1901; Mon. Phoridae, 387, 1904.
wheeleri BRUES, Amer. Nat., xxxv, 347, figs.; Mon. Phoridae, 388, brief desc.—
 Austin, Tex.; from nests of *Eciton cæcum* LATR. and *schmitti* EMERY.

ACONTISTOPTERA.

- BRUES, Amer. Naturalist, xxxvi, 1902, 373; Mon. Phoridae, 388, 1904.
melanderi BRUES, Amer. Nat., xxxv, 373, figs.; Mon. Phoridae, 389, brief desc.
 —Austin, Texas; in nests of *Eciton opacithorax* EMERY.

XAINONOTUM.

- BRUES, Amer. Naturalist, xxxvi, 1902, 376; Mon. Phoridae, 389, 1904.
hystrix BRUES, Amer. Nat., xxxvi, 376, figs.; Mon. Phoridae, 390, brief desc.—
 Austin, Texas; in nests of *Eciton opacithorax* EMERY.

PULICIPHORA.

- DAHL, Zool. Anzeiger, xx, 410, 1897; Sitzungsber. d. Naturforsch.
 Freunde, 185, 1898; Zool. Anzeiger, xxi, 308, 1898.
 WANDOLLECK, Zool. Jahrbuch, Abth. f. Syst., 424, 1898 (*Stethopathus*).
 BRUES, Amer. Naturalist, May, 1901, 354 (id.).
 MELANDER and BRUES, Biol. Bull., June, 1903 (id.).
 BRUES, Mon. Phoridae, 390, 1904, syn. and desc.
occidentalis MELANDER and BRUES, Biol. Bull., v, 17, f. 6, 7 (*Stethopathus*).—
 Woods Hole, Mass., about burrows of *Halictus*.
 BRUES, Mon. Phoridae, 391, quotes desc.

PLATYPEZIDÆ.

- SNOW, Kans. Univ. Quart., III, 143, 1894, table of genera, etc.
 VERRALL, British Flies, VIII, 15, table of genera, 1901.

AGATHOMYIA.

- VERRALL, British Flies, VIII, 30, 1901.
notata LOEW, Cent., VI, 76 (*Callomyia*); IX, 82 (*Callomyia tenera*).—Pa.; N. Y.
 SNOW, Kans. Univ. Quart., III, 152 (*Callomyia aldrichii*).—Lawrence,
 Kans.
 Gen. ref. and synonymy were communicated to me by Mr. Kahl.

CALLIMYIA.

MEIGEN, *Klassifikation*, 311, 1804; *Syst. Besch.*, IV, 10, 1824 (the latter *Callomyia*).

SCHINER, *Fauna Austr.*, I, 239, 1862 (id.).

VERRALL, *British Flies*, VIII, 22, 1901.

de MEIJERE, *Tijdschr. v. Ent.*, 1901, 223-234, desc. of larva of a European species.

aldrichii SNOW, see *Agathomyia notata*.

bella WILLISTON, *Biologia*, Dipt., III, 89.—Guerrero, Mex.

divergens LOEW, *Cent.*, VI, 77.—Pa.

notata LOEW, see *Agathomyia*.

talpula LOEW, *Cent.*, IX, 81.—N. H.

tenera LOEW, see *Agathomyia notata*.

venusta LOEW, *Kans. Univ. Quart.*, III, 151, pl. XII, f. 9, 10.—Magdalena Mts., N. M.

CALOTARSA.

TOWNSEND, *Canad. Ent.*, XXVI, 51, 102, 1894.

SNOW, *Kans. Univ. Quart.*, III, 143, makes it a synonym of *Platypeza*; Mr. Kahl inclines to the view that it may be retained.

calceata SNOW, *Kans. Univ. Quart.*, III, 146, pl. XII, f. 1, 3 (*Platypeza*).—Magdalena Mts., N. M.

ornatipes TOWNSEND, *Canad. Ent.*, 1894, 52, 102.—Ill.

BANKS, *Canad. Ent.*, XXVI, 88, oc. at Ithaca, N. Y.

Brookings, S. D.—Aldrich; see SNOW, *Kans. Univ. Quart.*, III, 207.

PLATYPEZA.

MEIGEN, *Illig. Mag.*, II, 272, 1803; *Syst. Besch.*, IV, 4, 1824.

SCHINER, *Fauna Austr.*, I, 241, 1862.

VERRALL, *British Flies*, VIII, 34, 1901.

SNOW, *Kans. Univ. Quart.*, III, 145, 1894, table of species.

abscondita SNOW, *Kans. Univ. Quart.*, III, 205.—Craig's Mt., Idaho.

anthrax LOEW, *Cent.*, IX, 83.—N. Y.

calceata SNOW, see *Calotarsa*.

cinerea SNOW, *Kans. Univ. Quart.*, III, 150; 148 (*velutina* LOEW); 206 (*pulla*).—Magdalena Mts., N. M., 9,500 ft. [Kahl, in litt.]

egregia SNOW, see *umbrosa*.

flavicornis LOEW, *Cent.*, VI, 79.—Pa.

obscura LOEW, *Cent.*, VI, 80.—Pa. White Mts., N. H.—Slosson.

ornatipes TOWNSEND, see *Calotarsa*.

pallipes LOEW, *Cent.*, VI, 81.—D. C.

pulchra SNOW, *Kans. Univ. Quart.*, III, 149, pl. XII, f. 6.—Magdalena Mts., N. M., 8,000 ft.

pulla SNOW, see *cinerea*.

tæniata SNOW, *Kans. Univ. Quart.*, III, 149.—Ill.

umbrosa SNOW, *Kans. Univ. Quart.*, III, 148, pl. XII, f. 7; p. 150 (*egregia*).—Magdalena Mts., N. M., 8,000 ft. [Kahl.]

unicolor SNOW, *Kans. Univ. Quart.*, III, 206.—Moscow, Idaho.

velutina LOEW, *Cent.*, VI, 79.—Pa.

N. J.—Smith Cat.; Montreal—Chagnon; White Mts., N. H.—Slosson.

For SNOW's *velutina* see *cinerea*.

PLATYCNEMA.

ZETTERSTEDT, Dipt. Scand., I, 332, 1842.

SCHINER, Fauna Austr., I, 242, 1862.

VERRALL, British Flies, VIII, 19, 1901.

? *imperfecta* LOEW (Cent., VI, 82.—D. C.). On examining the type, at Mr. Kahl's request, I found it to be a small Empid.

The genus occurs in the United States, however, for Mr. Kahl had a species, captured at Lawrence, Kans.

PIPUNCULIDÆ.

HOUGH, Proc. Boston Soc. Nat. Hist., XXIX, 77-86, 1899, paper containing table of genera.

BECKER, Berl. Ent. Zeitsch., XLII, 25-100, 1897, has a revision of the European members of the family.

VERRALL, British Flies, VIII, 1901, contains a monograph of the British species.

CHALARUS.

WALKER, Entomologist's Magazine, II, 269, 1834.

MACQUART, Hist. Nat. Dipt., II, 12, 1835 (*Ateleneura*).

SCHINER, Fauna Austr., I, 244, 1862.

BECKER, Berl. Ent. Zeitsch., XLII, 96, 1897.

VERRALL, British Flies, VIII, 67, 1901.

spurius FALLÉN, Syrph., 16 (*Cephalops*).—N. Europe.

MEIGEN, Syst. Besch., IV, 24 (*Pipunculus*).

MACQUART, Hist. Nat. Dipt., II, 12 (*Ateleneura nigripes*).

SCHINER, Fauna Austr., I, 245.

BECKER, Berl. Ent. Zeitsch., XLII, 96, bibliography, etc.

GIARD, Compt. Rend. Acad. Sci. Paris, CIX, records rearing the species from *Typhlocyba rosæ*, a leaf-hopper.

VERRALL, British Flies, VIII, 68.

N. J.—Smith Cat.; White Mts., N. H.—Slosson. Mr. Kahl has compared American with European specimens, and confirms the identity. We also have an undescribed species.

NEPHROCERUS.

ZETTERSTEDT, Ins. Lapp., 578, 1840; Dipt. Scand., III, 946, 1844.

BECKER, Berl. Ent. Zeitsch., XLII, 47, 1897.

VERRALL, British Flies, VIII, 77, 1901.

dæcki JOHNSON, Ent. News, XIV, 107.—Long Id., N. Y.

Mr. Coquillett determined an undescribed species from the White Mts. for Mrs. Slosson's list; Mr. Kahl also has reported the genus to me from Kansas.

PIPUNCULUS.

LATREILLE, Hist. Nat. Crust. et Ins., III, 463, 1802; XIV, 393, 1804.

FALLÉN, Syrphici, 14, 1816 (*Cephalops*).

MACQUART, Hist. Nat. Dipt., II, 9, 1835.

ZETTERSTEDT, Dipt. Scand., III, 949, 1844.

SCHINER, Fauna Austr., I, 245, 1862.

BECKER, Berl. Ent. Zeitsch., XLII, 35, 1897.

VERRALL, Brit. Flies, VIII, 79, 1901.

HOUGH, Proc. Boston Soc. Nat. Hist., XXIX, 77 et seq., table of species.

WILLISTON, Biologia, Dipt., III, 86, table of Mex. species, 1892.

BECKER, loc. cit., 28, gives references to observations on the larvæ;—they parasitize leaf-hoppers.

aculeatus WILLISTON, see *willistonii*.

albofasciatus HOUGH, Proc. Boston Soc. Nat. Hist., XXIX, 85.—Opelousas, La. N. J.—Smith Cat.

aridus WILLISTON, see *subvirescens*.

atlanticus HOUGH, Proc. Boston Soc. Nat. Hist., XXIX, 80.—New Bedford, Mass.; Montgomery Co., Pa. N. J.—Smith Cat.; Montreal—Chagnon.

cingulatus LOEW, Cent., VI, 73.—D. C.

HOUGH, Proc. Boston Soc. Nat. Hist., XXIX, 81, type redesc.

White Mts., N. H.—Slosson.

elegantulus WILLISTON, Biologia, Dipt., III, 87.—Guerrero, Mex.

fasciatus LOEW, Cent., X, 59.—Texas.

HOUGH, Proc. Boston Soc. Nat. Hist., XXIX, 78, type redesc.

KERTÉSZ, Wien. Ent. Zeitung, XIX, 270, would change name to *locwi*, because there was once a *fasciatus* described, which turned out to be a synonym. I should strongly object to admitting the principle.

flavicornis WILLISTON, Biologia, Dipt., III, 88.—Guerrero, Mex.

GIGLIO-TOS, Ditt. del Mess., II, 71, note on male.—Tuxpango, Mex.

flavitaris WILLISTON, Biologia, Dipt., III, 87.—Guerrero, Mex.

flavomaculatus HOUGH, Proc. Boston Soc. Nat. Hist., XXIX, 84.—Horse Neck Beach, Mass.

fuscitarsis ADAMS, Kans. Univ. Sci. Bull., II, 36.—Atherton, Mo.

fuscus LOEW, Cent., VI, 71.—Md.

? WALKER, List, III, 639 (*reipublicæ*).—N. Y. [Hough, with query.]

HOUGH, Proc. Boston Soc. Nat. Hist., XXIX, 82, type redesc.

White Mts., N. H.—Slosson; Axton, N. Y.—M. and H.

See *nitidiventris*.

houghi of Smith's Cat. is a manuscript name;—Ent. News, XII, 96 and XIV, 107.

houghi of KERTÉSZ, see *lateralis*.

lateralis WALKER, Dipt. Saund., 216.—N. A.

COQUILLET, Proc. Acad. Nat. Sci. Phil., 1895, 331, refers to *Prothecus*.

KERTÉSZ, Wien. Ent. Zeitung, 1900, 244, refers to *Pipunculus*, and changes name to *houghi* on account of preoccupation.

VERRALL, Brit. Flies, VIII, 120, shows that there was no preoccupation, as Meigen's *lateralis* is a synonym of *maculatus* WALKER.

St. Augustine, Fla.—Johnson.

nigricornis ADAMS, Kans. Univ. Sci. Bull., II, 36.—Atherton, Mo.

nigripes LOEW, Cent., VI, 75.—Pa.

HOUGH, Proc. Boston Soc. Nat. Hist., XXIX, 79, type redesc.

N. J.—Smith Cat.; White Mts., N. H.—Slosson.

nitidiventris LOEW, Cent., VI, 72.—D. C.

HOUGH, Proc. Boston Soc. Nat. Hist., XXIX, 82, type redesc.; may be the female of *fuscus*.

White Mts., N. H.—Slosson; Montreal—Chagnon.

opacus WILLISTON, see *Verrallia*.

pallipes JOHNSON, Ent. News, XIV, 107.—Wildwood, N. J.

politus WILLISTON, Trans. Ent. Soc. London, 1896, 351, pl. XI, f. 88.—St. Vincent, W. I.

similis HOUGH, Proc. Boston Soc. Nat. Hist., XXIX, 83.—Tifton, Ga.; Ala.

N. J.—Smith Cat.

subopacus LOEW, Cent., VI, 74.—D. C.

WILLISTON, Biologia, Dipt., III, 88, oc. and note.—Guerrero, Mex.

HOUGH, Proc. Boston Soc. Nat. Hist., XXIX, 79, type redesc.

Montreal—Chagnon.

subvirescens LOEW, Cent., x, 58.—Texas.

? WALKER, Trans. Ent. Soc., IV, 150 (*translatus*).—U. S. [Hough, with a ?]

WILLISTON, Dipt. of Death Val. Exped., 255 (*aridus*).—Argus Mt., Cal. [Hgh.]

HOUGH, Boston Soc. Nat. Hist., XXIX, 84.—New Bedford, Mass.; Tifton, Ga.; Opelousas, La.

Montreal—Chagnon.

willistonii KERTESZ, Wien. Ent. Zeit., XIX, 1900, 244, change of name.

WILLISTON, Biologia, Dipt., III, 88 (*aculcatus*, preoc.); Trans. Ent. Soc.

London, 1896, 351 (id.).—Tabasco, Mex.; St. Vincent, W. I.

xanthopodus WILLISTON, Biologia, Dipt., III, 87.—Guerrero, Mex.

VERRALLIA.

MIK, Wien. Ent. Zeit., XVIII, 137, 1899.

BECKER, Berl. Ent. Zeitsch., XLII, 1897, 93 (*Prothecus* ROND.).

Note.—According to Mik, loc. cit., Rondani made an error of identification, and the species he named as the type is not *auctus*, but has an acuminate third antennal joint. This antennal character is mentioned in the definition, hence *Prothecus* could not be used for the present group, in which the lack of a point on the third antennal joint is one of the principal characteristics.

opaca WILLISTON, Trans. Amer. Ent. Soc., XIII, 295 (*Pipunculus*).—Wash.

HOUGH, Proc. Boston Soc. Nat. Hist., XXIX, 77, refers to *Prothecus*, in Becker's sense.

KERTÉSZ, Wien. Ent. Zeitung, XIX, 244, refers to *Verrallia*.

SYRPHIDÆ.

WILLISTON, Synop. N. A. Syrphidæ. Bulletin of The United States National Museum, No. 31. Washington, 1886, xxx and 335 pages, with 12 plates. The largest and most complete family monograph yet published on North American Diptera.

VERRALL, British Flies. Syrphidæ, etc. Gurney and Jackson, London, 1901. 690 pages, portrait and many excellent text figures. Includes also in an appendix of 121 pages a full catalogue and bibliography of the British representatives of the three families described, which are the Platypetizidæ, Pipunculidæ and Syrphidæ. This massive volume is an encyclopedia on the three families indispensable to the advanced worker. Many of the British species and most of the genera occur also in America.

CHAGNON, G., Études Préliminaires sur les Syrphides de la Province de Québec. Chicotini, Québec, 1901, 75 pages. Originally published in parts in "Le Naturaliste Canadien," 1901. I quote the separate edition. It is a convenient and useful compilation on the commoner species of that region.

MICRODON.

MEIGEN, Illig. Mag., II, 275, 1803; Syst. Besch., III, 162, 1822.

LATREILLE, Hist. Nat. Crust. et Ins., XIV, 358, 1805 (*Aphritis*).

- WIEDEMANN, Auss. Zweifl., II, 79, 1830 (*Ceratophya*).
 MACQUART, Hist. Nat. Dipt., I, 486, 1834 (*Chymophila*). [O. S.]
 NEWMAN, Ent. Mag., v, 372, 1838 (*Dimcraspis*).
 WALKER, List, IV, 1157, 1849 (*Mesophila*); Dipt. Saund., 217, 1856 (*Ubristes*).
 SCHINER, Fauna Austr., I, 249, 1862.
 WILLISTON, Synop. N. A. Syrph., 3, 1886, def. and table of species; Biologia, Dipt., III, 2, 1891, syn., etc.
 GIGLIO-TOS, Boll. Mus. Zool., VI, No. 108, 4, 1891; Ditt. del Mess., I, 38, 1892 (both *Omegasyrphus*). [Will.]
 WHEELER, Psyche, July, 1901, larva in nest of *Pseudomyrmex* in Mex.
 VERRALL, Brit. Flies, VIII, 658, 1901.
 CHAGNON, Ét. Prélim. les Syrph., 13, 190, table of Quebec species, 1901.
- aquilinus** GIGLIO-TOS, Boll. R. Univ. Torino, VII, No. 123, 1892; Ditt. del Mess., I, 37.—Tuxpango, Mex.
- aurifex** WIEDEMANN, Auss. Zweifl., II, 85.—Brazil.
 MACQUART, Hist. Nat. Dipt., I, 486 (*Chymophila splendens*); Dipt. Exot., II, 2, 10 (id.); II, 3, 11 (*Aphritis aurifex*).—Philadelphia; Para.
 WALKER, Ins. Saund., 216 (*trochilus*).—Mex. [Will.]
 OSTEN SACKEN, Bull. Buff. Soc. Nat. Hist., Nov., 1875, on type of *Chymophila splendens*; quoted by Williston, Synops., 12.
 WILLISTON, Synop. N. A. Syrph., 9, 10; Biologia, Dipt., III, 2, pl. 1, f. 2.—Mex.; Guerrero and Tehuantepec.
- aurantulus** FABRICIUS, Syst. Antl., 185 (*Mulio*).—Carolina.
 WIEDEMANN, Auss. Zweifl., II, 86.
 MACQUART, Dipt. Exot., II, 2, 12, pl. II, f. 1 (*Aphritis*); Suppl. II, 2, 38 (*Aphritis crassitarsis*).—Carolina; Rio Negro.
 F. LYNCH ARRIBALZAGA, Dipt. Argent., 126 (*crassitarsis*).—Argentina.
 WILLISTON, Synop. N. A. Syrph., 11, transl. Wied. and Macq.
 GIGLIO-TOS, Ditt. del Mess., I, 35, oc. in Orizaba.
 JOHNSON, Ent. News, XII, 94, oc. in Pa.
- baliopterus** LOEW, Cent., x, 56.—Texas.
 WILLISTON, Synop. N. A. Syrph., 5, pl. 1, f. 4.
 Charlotte Harbor, Fla.—Johnson (*Omegasyrphus*).
 WILLISTON, Biologia, Dipt., III, 3, oc. and note.—Texas; Guerrero and N. Yucatan, Mex.
- bombiformis** TOWNSEND, see *megalogaster*.
- chrysopyga** GIGLIO-TOS, Boll. R. Univ. Torino, VII, No. 123, 1892 (*Ubristes*); Ditt. del Mess., I, 37 (id.).—Orizaba, Mex.
- coarctatus** LOEW, Cent., v, 47.—D. C.
 WILLISTON, Synop. N. A. Syrph., 6, transl. orig. desc.
 GIGLIO-TOS, Boll. R. Univ. Torino, VII, No. 118, 1892; Ditt. del Mess., I, 39, pl. 1, f. 11 (both *Omegasyrphus*, type of new genus).—Tuxpango, Mex.
 Orlando, Fla.—Johnson (*Omegasyrphus*).
- cothurnatus** BIGOT, see *tristis*.
- falcatus** WILLISTON, Synop. N. A. Syrph., 9; Biologia, Dipt., III, 3, notes.—Guerrero and Tehuantepec, Mex.
 GIGLIO-TOS, Ditt. del Mess., I, 36.—Tehuacan, Mex.
- fulgens** WIEDEMANN, Auss. Zweifl., II, 82.—Ga.
 GRAY, in Griffith's An. Kingd., Ins., II, pl. CXXV, f. 2 (*euglossoides*).
 MACQUART, Dipt. Exot., Suppl., I, 122 (*Aphritis*).—Guiana, Fla.
 WILLISTON, Synop. N. A. Syrph., 11, orig. desc., etc.

- St. Augustine and Suwanee, Fla.; pupæ found in decaying pine logs—Johnson.
- HUNTER, *Canad. Ent.*, xxviii, 89.—Fla.
- fuscipennis** MACQUART, *Hist. Nat. Dipt.*, i, 488 (*Ceratophya*).—Philadelphia.
- WALKER, *List*, iii, 539 (*agapenor*); iv, 1157, gen. ref. (*Mesophila*).—Ga.
- WILLISTON, *Synop. N. A. Syrph.*, 4, pl. i, f. 2 (*globosus* FAB.).—Atlantic States; Mich. [Syn. by SNOW.]
- TOWNSEND, *Trans. Amer. Ent. Soc.*, xxii, 33, female.—D. C.
- CHAGNON, *Ét. Prélim. les Syrph.*, 14; *Le Nat. Canadien*, Nov., 1900 (the latter as *globosus*).—Montreal.
- N. J.—Smith Cat.; Georgiana, Fla.—Johnson.
- globosus** FABRICIUS, *Syst. Antl.*, 185 (*Mulio*).—Carolina.
- WIEDEMANN, *Auss. Zweifl.*, ii, 86, transl. orig. desc.
- MACQUART, *Dipt. Exot.*, ii, 2, 13, pl. i, f. 4 (*Aphritis*).—Carolina.
- NEWMAN, *Ent. Mag.*, v, 373 (*Dimeraspis podagra*).
- WILLISTON, *Synop. N. A. Syrph.*, 4, pl. i, f. i (*fuscipennis* MACQ.).—Va., Fla., Tex., Col. [SNOW.]
- LINTNER, 2d N. Y. Rept., 116, figs.; larvæ in ants' nests in decaying wood.—N. Y.
- CHAGNON, *Ét. Prélim. les Syrph.*, 15.—N. J.
- gracilis** BIGOT, *Annales*, 1883, 320.—Mex.
- WILLISTON, *Biologia, Dipt.*, iii, 3.—Orizaba, Mex.
- inequalis** LOEW, *Cent.*, vii, 70.—Cuba.
- lætus** LOEW, *Cent.*, v, 46.—Cuba.
- lanceolatus** ADAMS, *Kans. Univ. Sci. Bull.*, ii, 222.—Englewood, Kans.
- limbus** WILLISTON, *Synop. N. A. Syrph.*, 8.—Fla.
- marmoratus** BIGOT, *Annales*, 1883, 320.—Cal.
- WILLISTON, *Synop. N. A. Syrph.*, 10, transl. of orig. desc.
- megalogaster** SNOW, *Kans. Univ. Quart.*, i, 34, pl. vii, f. i.—Col.
- TOWNSEND, *Trans. Amer. Ent. Soc.*, xxii, 33 (*bombiformis*).—Dixie Landing, Va. [Hunter.]
- JOHNSON, *Ent. News*, xii, 95, oc. in N. J. and Pa.
- niger** WILLISTON, *Biologia, Dipt.*, iii, 4, pl. i, f. 4.—Vera Cruz, Mex.
- pachystylum** WILLISTON, *Synop. N. A. Syrph.*, 8.—Ga.
- St. Augustine, Fla.—Johnson.
- pulcher** WILLISTON, *Synop. N. A. Syrph.*, 5.—San Domingo.
- rufipes** MACQUART, *Dipt. Exot.*, ii, 2, 11, pl. ii, f. 3 (*Aphritis*).—Pa.
- WILLISTON, *Synop. N. A. Syrph.*, 12, transl. orig. desc.
- JOHNSON, *Ent. News*, xii, 95, oc. in La.
- scitulus** WILLISTON, *Synop. N. A. Syrph.*, 10.—Fla.
- tristis** LOEW, *Cent.*, v, 45.—Va.
- WILLISTON, *Synop. N. A. Syrph.*, 6, pl. i, f. 3.—Conn., Ore.
- CHAGNON, *Ét. Prélim. les Syrph.*, 14.—Montreal.
- Mackenzie R.—O. S.; N. J.—Smith Cat.; Axton, N. Y.—M. and H.
- var. **cothurnatus** BIGOT, *Annales*, 1883, 320.—Wash.
- WILLISTON, *Synop. N. A. Dipt.*, 8.—Mt. Hood, Ore.
- var. **ruficrus** WILLISTON, *Synop. N. A. Syrph.*, 7.—Conn.
- violens** TOWNSEND, *Trans. Amer. Ent. Soc.*, xxii, 34.—Jamaica.
- viridis** TOWNSEND, *Pr. Cal. Acad. Sci.*, iv, 610.—Lower Cal.
- HUNTER, *Canad. Ent.*, xxix, 123, oc. in Tenn.
- xanthophilus** TOWNSEND, *Pr. Cal. Acad. Sci.*, iv, 611.—Cal.

RHOPALOSYRPHUS.

- GIGLIO-TOS, Boll. R. Univ. Torino, vi, No. 108, 1891; Ditt. del Mess., i, 34, 1892.
 F. LYNCH ARRIBALZAGA, Dipt. Argentina, 1891, 37 (*Holmbergia*).
 WILLISTON, Biologia, Dipt., iii, 78, 1891, notes.
güntheri F. LYNCH ARRIBALZAGA, Dipt. Argent., 1891, 37 (*Holmbergia*).—Buenos Aires.
 GIGLIO-TOS, Boll. R. Univ. Torino, vii, No. 118; Ditt. del Mess., i, 35, pl. i, f. 10.—Chinantla, Mex.

MIXOGASTER.

- MACQUART, Dipt. Exot., ii, 2, 14, 1842.
 KAHL, Kans. Univ. Quart., vi, 140, list of species, etc., 1897.
bellula WILLISTON, Biologia, Dipt., iii, i, pl. i, f. 1.—Guerrero, Mex.
breviventris KAHL, Kans. Univ. Quart., vi, 137.—Kans.
dimidiata GIGLIO-TOS, Boll. R. Univ. Torino, vi, No. 123, 1892; Ditt. del Mess., i, 33, pl. i, f. 9.—Tuxpango, Mex.
mexicana MACQUART, Dipt. Exot., Suppl., i, 123, pl. x, f. 15.—Mex.
 WILLISTON, Biologia, Dipt., iii, i, oc. and note.—Guerrero, Mex.

CALLICERA.

- PANZER, Fauna Germanica, civ, 1806.
 MEIGEN, Syst. Besch., iii, 155, 1822.
 SCHINER, Fauna Austr., i, 248, 1862.
 SNOW, Kans. Univ. Quart., i, 33, 1892.
 VERRALL, Brit. Flies, viii, 655, 1901.
johnsoni HUNTER, Canad. Ent., xxviii, 87.—Pa.
montensis SNOW, Kans. Univ. Quart., i, 34, pl. vii, f. 4; iii, 225, notes.—Col., 9,000 ft.; N. M., 9,500 ft.

CHRYSOTOXUM.

- MEIGEN, Illig. Mag., ii, 259, 1803; Syst. Besch., iii, 166, 1822.
 SCHINER, Fauna Austr., i, 252, 1862.
 WILLISTON, Synop. N. A. Syrph., 13, 1886, table of species, etc.
 CHAGNON, Ét. Prélim. les Syrph., 73, 1901.
 VERRALL, Brit. Flies, viii, 641, 1901.
derivatum WALKER, List, iii, 542.—Martin Falls, Canada.
 BIGOT, Annales, 1883, 323 (*villosulum*).—Wash. [Will.]
 WILLISTON, Synop. N. A. Syrph., 16, pl. i, f. 5.—Alaska, Colorado Mts., Cal., Ore.
 SNOW, Kans. Univ. Quart., i, 34, oc. and notes; iii, 226, oc. and notes.—Col.
 TOWNSEND, Trans. Amer. Ent. Soc., xxii, 35, notes on the male.
 HUNTER, Canad. Ent., xxviii, 89.—Wyo., Nebr.
 N. M.—Coq.
flavifrons MACQUART, Dipt. Exot., ii, 2, 17.—Newfoundland.
 WILLISTON, Synop. N. A. Syrph., 17, would drop.
integrum WILLISTON, Synop. N. A. Syrph., 16; Biologia, Dipt., iii, 5, oc. and note.—Ariz.; Sonora, Mex.
 GIGLIO-TOS, Ditt. del Mess., i, 39.—Mex.
 SNOW, Kans. Univ. Quart., iii, 227, oc. in N. M., and note.



laterale LOEW, Cent., v, 42.—Nebr.

WILLISTON, Synop. N. A. Syrph., 14, transl. orig. desc.—N. Y.

TOWNSEND, Trans. Amer. Ent. Soc., xxii, 35, oc. in Mex. and notes.

N. J.—Smith Cat.

nigritum FABRICIUS, Ent. Syst., iv, 292 (*Syrphus*); Syst. Antl., 183 (*Mulio*).—Jamaica.

WIEDEMANN, Auss. Zweifl., ii, 88.

pubescens LOEW, Wien. Ent. Monatsch., iv, 84; Cent., v, 43.—Ill.

WILLISTON, Synop. N. A. Syrph., 15, transl. orig. desc.—N. Y.

TOWNSEND, Trans. Amer. Ent. Soc., xxii, 35.—Mich., Va.

HUNTER, Canad. Ent., xxviii, 91, desc.

CHAGNON, Ét. Prélim. les Syrph., 73.—Isle Jesus, P. Q.

N. J.—Smith Cat.

ventricosum LOEW, Cent., v, 44.—D. C.

WILLISTON, Synop. N. A. Syrph., 15, transl. orig. desc.—Canada.

TOWNSEND, Trans. Amer. Ent. Soc., xxii, 36.—Ariz.

N. J.—Smith Cat.

villosulum BIGOT, see *derivatum*.

ypsilon WILLISTON, Synop. N. A. Syrph., 14.—N. M.

SNOW, Kans. Univ. Quart., iii, 226, notes on a female.

LEPROMYIA.

WILLISTON, Synop. N. A. Syrph., 31, 1886, change of name.

LOEW, Cent., v, 38, 1864 (*Lepidomyia*, preoc.).

calopus LOEW, Cent., v, 38 (*Lepidomyia*).—Cuba.

WILLISTON, Synop. N. A. Syrph., 31, transl. orig. desc.

cincta BIGOT, see *Chilosia*.

CHRYSOGASTER.

MEIGEN, Illig. Mag., ii, 274, 1803; Syst. Besch., iii, 265, 1822.

MACQUART, Hist. Nat. Dipt., i, 563 (*Orthoneura*), 1834.

BIGOT, Rev. et Mag. Zool., 1859, 3 (*Cryptineura*).

SCHINER, Fauna Austr., i, 266 and 271 (*Chrysogaster* and *Orthoneura*), 1862.

WILLISTON, Synop. N. A. Syrph., 31, 1886, table of species, etc.

VERRALL, Brit. Flies, viii, 185, 186, 1901 (*Chrysogaster* and *Orthoneura*).

CHAGNON, Ét. Prélim. les Syrph., 16, 1901, table of Quebec species.

apisaon WALKER, List, iii, 572.—N. Y.

bellula WILLISTON, Proc. Amer. Phil. Soc., xx, 304; Synop. N. A. Syrph., 36, pl. ii, f. 6; Biologia, Dipt., iii, 7.—Col., Wash., Cal.; Durango and Patzcuaro, Mex.

N. M.—Snow.

lata LOEW, Cent., iv, 59.—Br. N. A., English R.

WILLISTON, Synop. N. A. Syrph., 36, transl. orig. desc.—Ore.

nigripes LOEW, Cent., iv, 60, male; ix, 80, female (*Orthoneura ustulata*).—N. Y., N. J. [Will.]

? WALKER, List, iii, 572 (*antitheus*).—N. Y. [Will., with a doubt.]

WILLISTON, Synop. N. A. Syrph., 33, pl. ii, f. 10.—Conn., N. C.

CHAGNON, Ét. Prélim. les Syrph., 17.—Rigaud, Quebec.

N. J.—Smith Cat.; Sea Cliff, N. Y.—Banks.

nigrovittata LOEW, Zeitsch. f. Ges. Naturwiss., 1876, 378 (*Orthoneura*).—San Francisco.

WILLISTON, Proc. Amer. Phil. Soc., xx, 304; Synop. N. A. Syrph., 34, pl. ii, f. 11.—Wash., Cal., Col.

- nitida** WIEDEMANN, Auss. Zweifl., II, 116.—N. A.
 WALKER, List, III, 545 (*Paragus ancus*).—Ohio.
 BIGOT, Rev. et Mag. Zool., 1859. 4 (*Cryptineura hieroglyphica*); Annales, 1883, 315, protests against making this a synonym.
 LOEW, Cent., IV, 58, note (*Orthoncurea*).
 SCHINER, Novara, 368 (*Orthoncurea*), oc. in S. A.
 WILLISTON, Synop. N. A. Syrph., 35, pl. II, f. 7; Biologia, Dipt., III, 7, oc. in Mex.—New England, Pa., Va., S. C., Kans.
 TOWNSEND, Trans. Amer. Ent. Soc., XXII, 36, note.—Va., D. C.
 N. J.—Smith Cat.; Sea Cliff, N. Y.—Banks; Fla.—Johnson.
- pictipennis** LOEW, Cent., IV, 58 (*Orthoncurea*).—N. Y.
 WILLISTON, Synop. N. A. Syrph., 37.—Conn., N. Y., N. J.
 HUNTER, Canad. Ent., XXIX, 124, oc. in Neb.
 CHAGNON, Ét. Prélim. les Syrph., 18.—Montreal.
- pulchella** WILLISTON, Synop. N. A. Syrph., 35, pl. II, f. 9.—N. H., Conn., Canada.
 TOWNSEND, Trans. Amer. Ent. Soc., XXII, 36, note on var.—Mich.
 CHAGNON, Ét. Prélim. les Syrph., 17.—Montreal.
 N. J.—Smith Cat.
- recedens** WALKER, Dipt. Saund., 228.—U. S.
- stigmata** WILLISTON, Proc. Amer. Phil. Soc., XX, 303; Synop. N. A. Syrph., 34, pl. II, f. 8.—Cal.
 BIGOT, Annales, 1884, 556 (*Orthoncurea sinuosa*).—Wash. [Will.]
 Northern Ida.—J. M. A.

PSILOTA.

- MEIGEN, Syst. Besch., III, 256, 1822.
 SCHINER, Fauna Austr., I, 266, 1862.
 WILLISTON, Synop. N. A. Syrph., 30, 1886.
 VERRALL, Brit. Flies, VIII, 181, 1901.
- buccata** MACQUART, Dipt. Exot., II, 2, 107, pl. XVIII, f. 2 (*Pipiza*).—Carolina.
 WILLISTON, Synop. N. A. Syrph., 30 and 291.—Texas, Ga.
 HUNTER, Canad. Ent., XXVIII, 91, historical account, syn., etc.
 Inverness, Fla.—Johnson.
- flavipennis** MACQUART, Dipt. Exot., Suppl. v, 97, pl. v, f. 5.—Philadelphia.
 WILLISTON, Synop. N. A. Syrph., 30, quotes orig. desc.

PIPIZA.

- FALLÉN, Syrphidi, 58, 1816.
 MEIGEN, Syst. Besch., III, 241, 1822.
 LOEW, Oken's Isis, 1840, 512 (*Triglyphus*).
 RONDANI, Dipt. Ital. Prod., I, 53, 1856 (*Heringia*); II, 185, 1857 (*Pipizella*).
 EGGER, Verh. Zool.-Bot. Ges., XV, 573, 1865 (*Cnemodon*).
 PHILIPPI, Verh. Zool.-Bot. Ges., XV, 1865, 741 (*Penium*).
 SCHINER, Fauna Austr., I, 261, 1862.
 WILLISTON, Synop. N. A. Syrph., 22, def. and table of species, 1886; Biologia, Dipt., III, 6, bibl.
 VERRALL, Brit. Flies, VIII, 161, 1901.
 CHAGNON, Ét. Prélim. les Syrph., 18, 1901.
- albipilosa** WILLISTON, Synop. N. A. Syrph., 28.—Pa.
- bellula** WILLISTON, Biologia, Dipt., III, 6.—Guerrero, Mex.

- calcarata* LOEW, Cent., vi, 42.—N. Y.
 WILLISTON, Synop. N. A. Syrph., 24, transl. orig. desc.
 N. J.—Smith Cat.
- crassipes* BIGOT, Annales, 1884, 557.—N. A.
 WILLISTON, Synop. N. A. Syrph., 291, quotes orig. desc.
- divisa* WALKER, see *Ocyptamus dimidiatus*.
- femoralis* LOEW, Cent., vi, 38.—Ill.
 ? RILEY, 1st Mo. Rept., 121, f. 66; 6th Rept., 52; Amer. Entom., 1, 83
 (*radicum*).—Mo.; larvæ feed on *Schizoneura lanigera* and *Phylloxera*
vastatrix. [Will.]
 WILLISTON, Synop. N. A. Syrph., 26.—Pa.
 CHAGNON, Ét. Prélim. les Syrph., 19.—Montreal and Rigaud, Quebec.
- fraudulenta* LOEW, Cent., vi, 41.—Ill.
 WILLISTON, Synop. N. A. Syrph., 26, transl. desc.; may be same as *nigri-*
barba.
- modesta* LOEW, Cent., iv, 62 (*Triglyphus*).—N. Y.
 WILLISTON, Synop. N. A. Dipt., 24, transl. desc.
 WEBSTER, Canad. Ent., xxx, 19, reared from larvæ feeding on *Schizoneura*
lanigera.
 CHAGNON, Ét. Prélim. les Syrph., 20.—St. Jean, P. Q., Canada.
 N. J.—Smith Cat.; Montreal—Chagnon; Beulah, N. M.—Skinner.
- nigribarba* LOEW, Cent., vi, 40.—N. Y.
 WILLISTON, Synop. N. A. Syrph., 25, transl. desc. See *fraudulenta*.
- nigripilosa* WILLISTON, Synop. N. A. Syrph., 28.—Pa.
- occidentalis* TOWNSEND, Annals and Mag. Nat. Hist., xix, 140.—Rio Ruidosa,
 N. M.
- pistica* WILLISTON, Synop. N. A. Syrph., 29.—Conn.
 CHAGNON, Ét. Prélim. les Syrph., 20.—Sherbrooke, Quebec.
 N. J.—Smith Cat.; N. M.—Snow; Montreal—Chagnon.
- pisticoides* WILLISTON, Synop. N. A. Syrph., 29.—White Mts., N. H.
 COQUILLET, Proc. Wash. Acad. Sci., ii, 426, oc. in Alaska, Me., N. Y.,
 Col.
 Beulah, N. M.—Skinner; Axton, N. Y.—M. and H.
- pubescens* LOEW, Cent., iv, 61 (*Triglyphus*).—Wis.
 WILLISTON, Synop. N. A. Syrph., 23, transl. desc.
- puella* WILLISTON, Synop. N. A. Syrph., 27, pl. ii, f. 3.—N. H.
- pulchella* WILLISTON, Synop. N. A. Syrph., 29, pl. ii, f. 1.—Conn., Mass.
 N. J.—Smith Cat.; St. Augustine and L. Worth, Fla.—Johnson.
- radicum* RILEY, see *femoralis*.
- salax* LOEW, Cent., vi, 39.—Pa.
 WILLISTON, Synop. N. A. Syrph., 25, transl. desc.

NAUSIGASTER.

- WILLISTON, Trans. Amer. Ent. Soc., xi, 33, 1885; Synop. N. A. Syrph.,
 21, 1886.
- TOWNSEND, Annals and Mag. Nat. Hist., xx, 23, 1897, table of species,
 etc.
- geminata* TOWNSEND, Annals and Mag. Nat. Hist., xx, 25.—Beeville and Ken-
 nedy, Texas.
- meridionalis* TOWNSEND, Annals and Mag. Nat. Hist., xix, 20.—Vera Cruz, Mex.
- punctulata* WILLISTON, Trans. Amer. Ent. Soc., xi, 34, pl. ii, f. 15; Synop. N.
 A. Syrph., 21, pl. i, f. 10; Biologia, Dipt., iii, 6, oc. and notes.—N. M.,
 Cal., Mex.
- TOWNSEND, Psyche, 1897, 148, notes.—N. M.

GLAUROTRICHA.

THOMSON, Eugen. Resa, 493, 1868.

BIGOT, Annales, 1883, 250.

WILLISTON, Synop. N. A. Syrph., 301, note, 1886.

volucelloides BIGOT, Annales, 1884, 548.—Mex.

WILLISTON, Synop. N. A. Syrph., 301, note.

PARAGUS.

LATREILLE, Dict. D'Hist. Nat., xxiv, 1804; Hist. Nat. Crust. et Ins., xiv, 358, 1804.

MEIGEN, Syst. Besch., iii, 176, 1822.

SCHINER, Fauna Austr., i, 256, 1862.

WILLISTON, Synop. N. A. Syrph., 17, 1886, def. and table of species.

VERRALL, Brit. Flies, viii, 149, 1901.

CHAGNON, Ét. Prélim. les Syrph., 21, 1901.

angustifrons LOEW, Cent., iv, 64.—Va.

WILLISTON, Synop. N. A. Syrph., 17, transl. desc.

N. J.—Smith Cat.; Montreal—Chagnon; Sea Cliff, N. Y.—Banks.

bicolor FABRICIUS, Ent. Syst., iv, 297 (*Syrphus*); Syst. Antl., 186 (*Mulio*).—Europe.

LATREILLE, Dict. d'Hist. Nat., xxiv, 194.

MEIGEN, Syst. Besch., iii, 178–180 (*arcuatus*, *bicolor*, *taniatus*, and *testaceus*).

MACQUART, Hist. Nat. Dipt., i, 565.

ZETTERSTEDT, Dipt. Scand., ii, 849–852 (*bicolor*, *punctulatus*, and *ruficauda*).

SCHINER, Fauna Austr., i, 259; Verh. Zool.-Bot. Ges., vii, 301.

OSTEN SACKEN, Catalogue, 120, oc. in N. A.

WILLISTON, Synop. N. A. Syrph., 18, pl. 1, f. 7, 9.—U. S. and Europe; common and variable.

TOWNSEND, Psyche, Nov., 1897, oc. in N. M., and notes on varieties.

VERRALL, Brit. Flies, viii, 152.

CHAGNON, Ét. Prélim. les Syrph., 21.—Quebec.

dimidiatus LOEW, Cent., iv, 63.—D. C.

WILLISTON, Synop. N. A. Syrph., 20, transl. desc.; Biologia, Dipt., iii, 5, oc. and notes; perhaps not distinct from *tibialis*.—Mexico, several places.

tibialis FALLÉN, Syrphidi, 60 (*Pipiza*).—Europe.

MEIGEN, Syst. Besch., iii, 182–184 (*hamorrhous*, *æneus*, *obscurus*, *tibialis*, and *femoratus*).

ZETTERSTEDT, Dipt. Scand., ii, 852–854 (*tibialis*, *trianguliferus*, and *æneus*).

SCHINER, Fauna Austr., i, 257, desc. and European bibliography.

BIGOT, Annales, 1884, 540 (*auricaudatus*).—Cal.

WILLISTON, Synop. N. A. Syrph., 19, bibl., etc.—Europe and N. A.; common and variable.

TOWNSEND, Psyche, Nov. 1897, 140; Dec. 1897, 147, notes on varieties, etc.—N. M.

VERRALL, Brit. Flies, viii, 150.

CHILOSIA.

MEIGEN, Syst. Besch., iii, 296, 1822.

SCHINER, Fauna Austr., i, 273, 1862.

WILLISTON, Synop. N. A. Syrph., 38, 1886, table of species; Biologia, iii, 8, 1891, table of Central Am. spp.

- BIGOT, Annales, 1883, 230 (*Cartosyrphus*). [Will.]
- HUNTER, Canad. Ent., xxviii, 229, 1896, table and catalogue of species; xxix, 1897, table of new species.
- VERRALL, British Flies, viii, 205, 1901.
- CHAGNON, Ét. Prélim. les Syrph., 21, 1901.
- Note*.—The great work on this genus is the monograph by Theodor Becker, Halle, 1894, with 13 plates. This includes only the palæarctic fauna, not that of North America.
- æscytes* WALKER, List, iii, 591 (*Syrphus*).—Martin Falls, Canada.
- OSTEN SACKEN, Cat., 124, gen. ref.
- alaskensis* HUNTER, Canad. Ent., xxix, 124, fig.—Cook's Inlet, Alaska.
- COQUILLET, Proc. Wash. Acad. Sci., ii, 427, oc. in Yakutat, Alaska.
- aldrichi* HUNTER, Canad. Ent., xxviii, 229.—Craig's Mt., Idaho.
- auritecta* GIGLIO-TOS, Boll. R. Univ. Torino, vii, No. 132, 1892; Ditt. del Mess., ii, 58, pl. ii, f. 22.—Orizaba, Mex.
- baroni* WILLISTON, Synop. N. A. Syrph., 40.—Cal., Wash.
- borealis* COQUILLET, Proc. Wash. Acad. Sci., ii, 426.—Alaska, several places.
- capillata* LOEW, Cent., iv, 65.—D. C.
- BIGOT, Annales, 1884, 552 (*Cartosyrphus lamprurus*).—N. A. [Will.]
- WILLISTON, Synop. N. A. Syrph., 43.—Va.
- N. J.—Smith Cat.
- chalybescens* WILLISTON, Kans. Univ. Quart., ii, 76.—Cal.
- chrysochlamys* WILLISTON, Biologia, Dipt., iii, 8, pl. i, f. 4.—Guerrero, Mex.
- ? *cincta* BIGOT, Annales, 1883, 345 (*Lepidomyia*).—Mex.
- WILLISTON, Synop. N. A. Syrph., 299, doubtfully referred here.
- comosa* LOEW, Cent., iv, 66.—English R., Winnipeg.
- WILLISTON, Synop. N. A. Syrph., 44.—Col.
- CHAGNON, Ét. Prélim. les Syrph., 74.—St. Hilaire, Quebec.
- cyanea* HUNTER, Canad. Ent., xxviii, 228.—Moscow, Idaho.
- cyanescens* LOEW, Cent., iv, 67, male.—Ill.
- ? LOEW, Cent., iv, 68, female (*plumata*).—Va. [Will., with some doubt.]
- WILLISTON, Synop. N. A. Syrph., 42, pl. iii, f. 3.—Conn., N. H.
- CHAGNON, Ét. Prélim. les Syrph., 23.—Montreal.
- frontosa* BIGOT, Annales, 1883, 553 (*Cartosyrphus*).—Mex.
- gracilis* HUNTER, Canad. Ent., xxix, 126, fig.—Cook's Inlet, Alaska.
- COQUILLET, Proc. Wash. Acad. Sci., ii, 427, would make this a syn. of *plutonia*.
- hoodiana* BIGOT, Annales, 1884, 552 (*Cartosyrphus*).—Mt. Hood, Ore.
- WILLISTON, Synop. N. A. Syrph., 292, quotes desc.; changes name to *hoodiensis*.
- Hudsonian Zone, N. M.—Cockerell.
- infumatus* BIGOT, see *nigripennis*.
- lævis* BIGOT, Annales, 1884, 553 (*Cartosyrphus*).—Wash.
- WILLISTON, Synop. N. A. Syrph., 292, quotes desc.
- lamprurus* BIGOT, see *capillata*.
- lasiophthalmus* WILLISTON, Proc. Amer. Phil. Soc., xx, 306, 1882; Synop. N. A. Syrph., 40, pl. iii, f. 2.—Col.
- COQUILLET, Proc. Wash. Acad. Sci., ii, 427, oc. in Alaska.
- White Mts., N. H.—Slosson.
- latrans* WALKER, List, iii, 575 (*Syrphus*).—Martin Falls, Canada. Gen. ref. by O. S., Cat., 124.
- leucoparea* LOEW, Cent., iv, 69.—Carolina.
- WILLISTON, Synop. N. A. Syrph., 45, transl. desc.

- lucta** SNOW, Kans. Univ. Quart., III, 228.—Col.
- lugubris** WILLISTON, see *willistoni*.
- nigripennis** WILLISTON, Proc. Amer. Phil. Soc., xx, 307; Synop. N. A. Syrph., 44, pl. II, f. 14.—Mt. Hood, Ore.
BIGOT, Annales, 1884, 553 (*Cartosyrphus infumatus*).—Mt. Hood, Ore. [Will.]
- occidentalis** WILLISTON, Proc. Amer. Phil. Soc., xx, 305; Synop. N. A. Syrph., 41, pl. III, f. 1.—Cal.
COQUILLETT, Proc. Wash. Acad. Sci., II, 426, oc. in Alaska and Col.
CHAGNON, Ét. Prélim. les Syrph., 22.—Sherbrooke, Quebec.
White Mts., N. H.—Slosson; Hudsonian Zone, N. M.—Cockerell.
- pacifica** HUNTER, Canad. Ent., xxix, 127, fig.—Cal.
- pallipes** LOEW, Cent., IV, 70.—D. C.
WILLISTON, Synop. N. A. Syrph., 41, pl. III, f. 5.—Jackson, N. H.; Wash., Ore.
CHAGNON, Ét. Prélim. les Syrph., 23.—Montreal.
N. J.—Smith Cat.; White Mts., N. H.—Slosson.
- parva** WILLISTON, Proc. Amer. Phil. Soc., xx, 307; Synop. N. A. Syrph., 45, pl. II, f. 13.—Ore.
BIGOT, Annales, 1884, 555 (*Melanogaster? ochripes*).—Mt. Hood, Ore [Will.]
- petulca** WILLISTON, Synop. N. A. Syrph., 39, pl. II, f. 15.—Wash.
White Mts., N. H.—Slosson.
SNOW, Kans. Univ. Quart., III, 228, oc. in Col. and note.
- plumata** LOEW, see *cyancscens*.
- plutonia** HUNTER, Canad. Ent., xxix, 125, fig.—Cook's Inlet, Alaska.
COQUILLETT, Proc. Wash. Acad. Sci., II, 427, oc. in Alaska.
See note about this under *gracilis*.
- prima** HUNTER, Canad. Ent., xxviii, 92.—Pa.
- pulchriceps** LOEW, Verh. Zool.-Bot. Verein, 1857, 19.—Europe.
SCHINER, Fauna Austr., I, 281.
BECKER, Rev. Gatt. Chilisia, 372.
COQUILLETT, Proc. Wash. Acad. Sci., II, 428, oc. in Alaska.
VERRALL, British Flies, VIII, 222.
- punctulata** HUNTER, Canad. Ent., xxix, 128, fig.—Nebr.
- ? rufipes** BIGOT, Annales, 1884, 555 (*Melanogaster*).—N. A.
WILLISTON, Synop. N. A. Syrph., 301, quotes desc.; may be a *Melanostoma*.
- signatiseta** HUNTER, Canad. Ent., xxviii, 227.—Moscow, Idaho.
- skinneri** JOHNSON, Trans. Amer. Ent. Soc., xxix, 101.—Beulah, N. M.
- sororcula** WILLISTON, Biologia, Dipt., III, 9.—Guerrero, Mex.
SNOW, Kans. Univ. Quart., III, 228.—N. M.
- sororia** WILLISTON, Biologia, Dipt., III, 8.—Durango, Mex.
- tarda** SNOW, Kans. Univ. Quart., III, 228.—Col.
- townsendi** HUNTER, Canad. Ent., xxviii, 94.—Cal.
TOWNSEND, Proc. Cal. Acad. Sci., ser. 2, IV, 611 (*Chilisia*, n. sp.).
- tristis** LOEW, Cent., IV, 71.—Red R. of the North.
WILLISTON, Synop. N. A. Syrph., 293, notes.
COQUILLETT, Proc. Wash. Acad. Sci., II, 427, oc. in Alaska.
Beulah, N. M.—Skinner; Canadian Zone, N. M.—Cockerell.
- versipellis** WILLISTON, Synop. N. A. Syrph., 44.—Wash.
- willistonii** SNOW, Kans. Univ. Quart., III, 227, change of name.
WILLISTON, Synop. N. A. Syrph., 45 (*lugubris*, preoc.).—Col.
HUNTER, Canad. Ent., xxviii, 233, note.

CHALCOMYIA.

- WILLISTON, Bull. Brooklyn Ent. Soc., vii, 113, 1885; Synop. N. A. Syrph., 126, 1886.
ærea LOEW, Cent., x, 53 (*Myiolepta*).—Ill.
 WILLISTON, Synop. N. A. Dipt., 126, pl. iv, f. 14.—Va.

MYIOLEPTA.

- NEWMAN, Ent. Mag., v, 373, 1838.
 RONDANI, Dipt. Ital. Prod., ii, 96, 1857 (*Xyloteja*).
 SCHINER, Fauna Austr., i, 324, 1862.
 WILLISTON, Synop. N. A. Syrph., 127, 1886, def. and table of species.
 VERRALL, Brit. Flies, viii, 572, 1901.
ærea LOEW, see *Chalcomyia*.
auricaudata WILLISTON, Biologia, Dipt., iii, 40, pl. i, f. 11.—Guerrero and Mor-
 elos, Mex.
aurinota HINE, Canad. Ent., xxxv, 245.—Phoenix, Ariz.
bella WILLISTON, Proc. Amer. Phil. Soc., xx, 308; Synop. N. A. Syrph., 128, pl.
 v, f. 2.—Wash., Ore.
 COQUILLETT, Proc. Wash. Acad. Sci., ii, 434, oc. at Virgin Bay, Alaska.
nigra LOEW, Cent., x, 52.—Pa.
 WILLISTON, Synop. N. A. Syrph., 129, pl. iv, f. 15.—N. Y., N. C.
strigilata LOEW, Cent., x, 54.—Texas.
 WILLISTON, Synop. N. A. Syrph., 127.—N. C.
varipes LOEW, Cent., ix, 79.—Va.
 WILLISTON, Proc. Amer. Phil. Soc., xx, 308; Synop. N. A. Syrph., 128,
 pl. v, f. 1.—Wash., Col.
 BIGOT, Annales, 1884, 537 (*lunulata*).—Mt. Hood, Ore. [Will.]

BACCHA.

- FABRICIUS, Syst. Antl., 199, 1805.
 MEIGEN, Syst. Besch., iii, 196, 1822.
 SCHINER, Fauna Austr., i, 323, 1862.
 WILLISTON, Synop. N. A. Syrph., 116, 1886, def. and table of species;
 Biologia, Dipt., iii, 1891, 31, table of Central American spp.
 CHAGNON, Ét. Prélim. les Syrph., 41, 1901.
 VERRALL, Brit. Flies, viii, 455, 1901.
adspersa FABRICIUS, Syst. Antl., 200.—S. A.
 WIEDEMANN, Auss. Zweifl., ii, 97.—S. A.
 SCHINER, Novara, 342.—S. A.
 WILLISTON, Trans. Amer. Ent. Soc., xv, 269; Biologia, Dipt., iii, 34, oc.—
 Brazil; Panama.
ænea WILLISTON, Biologia, Dipt., iii, 37, pl. i, f. 10.—Guerrero, Mex.
attenuata WILLISTON, Biologia, Dipt., iii, 35.—Guerrero, Mex.
aurinota WALKER, see *fascipennis*.
babista WALKER, see *clavata*.
capitata LOEW, Cent., iii, 25.—Cuba.
 WILLISTON, Synop. N. A. Syrph., 124.—Cuba.
 Porto Rico—Roeder.
clavata FABRICIUS, Ent. Syst., iv, 298 (*Syrphus*); Syst. Antl., 200.—W. I.
 WIEDEMANN, Auss. Zweifl., ii, 94.—S. A.
 SCHINER, Novara, 341, note.—S. A.
 WALKER, List, iii, 548 (*varia*); 549 (*babista*); Trans. Linn. Soc., xvii,
 342 (*Paragus? scutellaris*).—No. loc.; Ga.; Brazil. [Austen.]

- THOMSON, Eugen. Resa, 504 (*facialis*).—Galapagos Ids. [Will.]
 BIGOT, Annales, 1883, 326 (*Spazigaster bacchoides*).—Rocky Mts. [Will.]
 WILLISTON, Trans. Amer. Ent. Soc., xv, 270; Synop. N. A. Syrph., 117, pl. iv, f. 9 (*babista*); Biologia, Dipt., iii, 33; Ent. News, iii, 145, bibl.; Trans. Ent. Soc. Lond., 1896, 347, full syn.—Ga., Fla., Ariz., Cal., Mex. (several places), St. Vincent, W. I., and Guadeloupe.
 AUSTEN, Proc. Zool. Soc. Lond., 1893, 159, syn. of Walker's spp., from types.
 SNOW, Kans. Univ. Quart., iii, 239, oc. in N. M., Fla., Col.
 GIGLIO-TOS, Ditt. del Mess., ii, 57, pl. ii, f. 20, oc. in Mex.
 TOWNSEND, Jour. N. Y. Ent. Soc., v, 172, brief desc. of pupa; Trans. Amer. Ent. Soc., xxii, notes.—Brownsville, Texas; Jamaica and N. M.
 HUNTER, Canad. Ent., xxviii, 96, oc. and notes; xxix, 130, oc.—Nebr.
 Porto Rico—Roeder and Coquillett; Jamaica and Fla.—Johnson; N. J.—Smith Cat.
- cochinillivora** GUÉRIN, Rev. Zool., 1848, 350; Bull. Soc. Ent., 1848.—Guatemala.
cærulea WILLISTON, Biologia, Dipt., iii, 38.—Guerrero, Mex.
cognata LOEW, Cent., iii, 27.—N. Y. (Not N. Wis.—O. S.)
 WILLISTON, Synop. N. A. Syrph., 122, quotes orig. desc.
 CHAGNON, Ét. Prélim. les Syrph., 42.—Montreal.
 N. J.—Smith Cat.
- concinna** WILLISTON, Biologia, Dipt., iii, 38.—Guerrero and Tabasco, Mex.
conjuncta WIEDEMANN, Auss. Zweifl., ii, 116 (*Syrphus*).—S. A.
 WILLISTON, Trans. Amer. Ent. Soc., xv, 267; Biologia, Dipt., iii, 33, oc.—Brazil; Vera Cruz, Mex.
costata SAY, Jour. Acad. Sci. Phil., vi, 61; Compl. Works, ii, 357.—Ind.
 WILLISTON, Synop. N. A. Syrph., 122, quotes orig. desc.
cubensis MACQUART, Dipt. Exot., Suppl. iv, 161.—Cuba.
cylindrica FABRICIUS, Spec. Ins., ii, 249; Ent. Syst., iv, 298 (both *Syrphus*): Syst. Antl., 199.—W. I.
 WIEDEMANN, Auss. Zweifl., ii, 92.—W. I.
- dimidiata** FABRICIUS, see *Ocyptamus*.
dolosa WILLISTON, Biologia, Dipt., iii, 37, pl. i, f. 7.—Guerrero, Mex.; Guatemala.
fascipennis WIEDEMANN, Auss. Zweifl., ii, 96.—No locality.
 WALKER, List, iii, 548 ("*Baccha aurinota* HARRIS, Catalogue Ins. of Massachusetts").—U. S. Harris' name had not been published.
 VAN DER WULP, Tijdschr. v. Ent., xxvi, 9, oc. at Quebec.
 WILLISTON, Synop. N. A. Syrph., 120, pl. iv, f. 7 ("*aurinota* (Harris) Walker").—Conn., Mass., Ind.
 CHAGNON, Ét. Prélim. les Syrph., 42.—Ottawa.
 Sea Cliff, N. Y.—Banks.
- gracilis** WILLISTON, Biologia, Dipt., iii, 34.—Guerrero, Mex.
laudabilis WILLISTON, Biologia, Dipt., iii, 36.—Guerrero, Mex.
lemur OSTEN SACKEN, West. Dipt., 331.—Cal., Wyo., N. M.
 WILLISTON, Synop. N. A. Syrph., 121, quotes orig. desc.
 TOWNSEND, Psyche, 1897, 148, notes; Annals and Mag. Nat. Hist., xix, 140, oc.; Trans. Amer. Ent. Soc., xxii, 38, notes.—N. M.
 HUNTER, Canad. Ent., xxix, 131, note.—Col.
- lepida** MACQUART, Dipt. Exot., ii, 2, 109, pl. xix, f. 1.—No locality.
 GIGLIO-TOS, Ditt. del Mess., ii, 55.—Orizaba, Mex.
lineata MACQUART, Dipt. Exot., Suppl. i, 139, pl. xx, f. 5.—Yucatan, or Texas.

livida SCHINER, Novara, 343.—S. A.

WILLISTON, Trans. Amer. Ent. Soc., xv, 268; Biologia, Dipt., III, 33, oc.—Brazil, and Guerrero, Vera Cruz and N. Yucatan, Mex.; may be same as *lineata*.

luctuosa BIGOT, Annales, 1883, 334.—Mex.

? WILLISTON, Biologia, Dipt., III, 39, doubtfully identified and redesc. from Costa Rica.

lugens LOEW, Cent., III, 24.—N. Wis.

WILLISTON, Synop. N. A. Syrph., 118.—S. States.

N. J.—Smith Cat.; Crescent City, Fla.—Johnson; Sea Cliff, N. Y.—Banks.

lugubris WILLISTON, Biologia, Dipt., III, 37.—Guerrero, Vera Cruz, and Tabasco, Mex.

marmorata BIGOT, Annales, 1883, 333.—Mex.

GIGLIO-TOS, Ditt. del Mess., II, 58, pl. II, f. 19.—Orizaba, Mex.

nasuta BIGOT, Annales, 1884, 103 (*Sphæriophoria nasuta*; the same name is used for a different species in Annales, 1888, 253—G. T.).—Mex.

WILLISTON, Biologia, Dipt., III, 35 (*nasuta*, n. sp.).—Mex. [G. T.]

GIGLIO-TOS, Ditt. del Mess., II, 57, pl. II, f. 8.—Orizaba and Solco, Mex.

notata LOEW, Cent., VII, 65.—Cuba.

HUNTER, Canad. Ent., XXVIII, 97, transl. desc. and notes.—Fla.

Charlotte Harbor, Fla.—Johnson.

obscuricornis LOEW, Cent., III, 26.—Sitka.

OSTEN SACKEN, West. Dipt., 332 (*angusta*).—Cal. [Will.]

OSTEN SACKEN, Cat., 127, believes *angusta* is the same as as the European *B. elongata* F.

WILLISTON, Synop. N. A. Syrph., 123.—Col.

COQUILLET, Proc. Wash. Acad. Sci., II, 434, oc. in Br. Col. and Alaska.

parvicornis LOEW, Wien. Ent. Monatsch., v, 41; Cent., VII, 64.—Cuba.

Porto Rico—Roeder.

phæoptera SCHINER, Novara, 342.—S. A.

WILLISTON, Trans. Amer. Ent. Soc., xv, 267; Biologia, Dipt., III, 33, oc. and note.—Brazil; Mexico, several places.

TOWNSEND, Annals and Mag. Nat. Hist., XIX, 20.—Paso de Telaya, Mex.

punctifrons WILLISTON, Biologia, Dipt., III, 36.—Guerrero, Mex.

rubida WILLISTON, Biologia, Dipt., III, 34, pl. I, f. 8.—Guerrero, Mex.

sagittifera AUSTEN, Proc. Zool. Soc. Lond., 1893, 144, pl. IV, f. 14.—Jamaica.

spatulata GIGLIO-TOS, Boll. R. Univ. Torino, VII, No. 132, 1892; Ditt. del Mess., II, 56, pl. II, f. 18.—Orizaba, Mex.

stenogaster WILLISTON, Trans. Amer. Ent. Soc., xv, 266; Biologia, Dipt., III, 34, oc. and note.—Brazil; Guerrero, Mex.

tarchetius WALKER, List, III, 549.—Ga.

WILLISTON, Synop. N. A. Syrph., 117.—N. J.

TOWNSEND, Trans. Amer. Ent. Soc., XXII, 38, notes.—Va.

HUNTER, Canad. Ent., XXVIII, 96, oc. and notes.—Penn., Ala.

N. J.—Smith Cat.; Orlando and Inverness, Fla.—Johnson.

torva WILLISTON, see *Ocyptamus trigonus*.

tricincta BIGOT, Annales, 1883, 33.—Wash.

tropicalis TOWNSEND, Jour. N. Y. Ent. Soc., v, 172; VI, 50, notes.—Brownsville, Texas.

OCYPTAMUS.

MACQUART, Hist. Nat. Dipt., I, 554, 1834.

WILLISTON, Synop. N. A. Syrph., 116, 1886, combines with *Baccha*; Manual, 86, 1896, reinstates.

antiphates WALKER, List, III, 589 (*Syrphus*).—Jamaica.

AUSTEN, Proc. Zool. Soc. Lond., 1893, 134, gen. ref., from type.

conformis LOEW, Cent., VII, 67.—Cuba.

WILLISTON, Synop. N. A. Syrph., 119, may be same as *fascipennis* (*Baccha*).

Porto Rico—Roeder.

dimidiatus FABRICIUS, Spec. Ins., II, 434; Ent. Syst., IV, 310 (both *Syrphus*); Syst. Antl., 254 (*Scava*).—W. I.

WIEDEMANN, AUSS. Zweifl., II, 140 (*Syrphus*).—W. I.

WALKER, Trans. Ent. Soc., n. ser., IV, 156 (*Pipiza dolosa* and *divisa*).—Amazon; Vera Cruz. [Austen.]

MACQUART, Dipt. Exot., II, 2, 105 (*Chilosia*), gen. ref.

SCHINER, Novara, 346, oc. in Brazil.

VAN DER WULP, Tijdschr. v. Ent., XXVI, 10.—Guadeloupe.

WILLISTON, Trans. Amer. Ent. Soc., XV, 265; Synop. N. A. Syrph., 125, pl. v, f. 10 (*Baccha*); Biologia, Dipt., III, 30, oc. and notes; Trans. Ent. Soc. Lond., 1896, 348, full syn.—Brazil; San Domingo; Mexico, several places; St. Vincent. W. I.

GIGLIO-TOS, Ditt. del Mess., II, 53.—Mexico, common.

TOWNSEND, Trans. Amer. Ent. Soc., XXII, 39, oc. in Jamaica.

fasciatus ROEDER, Stett. Ent. Zeit., 1885, 342.—Porto Rico.

funebis MACQUART, Hist. Nat. Dipt., I, 554; Dipt. Exot., II, 2, 105, pl. XIX, f. 2.—Brazil; Isle Teneriffe.

BIGOT, in Sagra's Cuba, Ins., 338, oc. in Cuba.

SCHINER, Novara, 346, notes.—Brazil.

VAN DER WULP, Tijdschr. v. Ent., XXVI, 9, note.—Bahia.

WILLISTON, Trans. Amer. Ent. Soc., XV, 265; Biologia, Dipt., III, 30.—Brazil; Mexico, several places.

F. LYNCH ARRIBALZAGA, Dipt. Argentina, 253.—Argentina.

GIGLIO-TOS, Ditt. del Mess., II, 54, oc. in Mex., common.

fuscipennis SAY, Jour. Acad. Sci. Phil., III, 100; Compl. Works, II, 86 (*Baccha*).—Pa.

MACQUART, Hist. Nat. Dipt., I, 554, pl. XII, f. 13 (*fascipennis*, n. sp.).—Philadelphia.

WALKER, List, III, 589, 590 (*Syrphus amissas*, *radaca*, and *peas*).—Ga.; Fla.; no locality. [Austen, from Walker's types.]

LOEW, Cent., VII, 66 (*longiventris*).—D. C. [Will.]

OSTEN SACKEN, Cat., note 216, on Walker's types.

VAN DER WULP, Tijdschr. v. Ent., XXVI, 9, note (*fascipennis*).—Guadeloupe.

WILLISTON, Synop. N. A. Syrph., 119, pl. IV, f. 8 (*Baccha*).—Conn., Fla., Kans.

TOWNSEND, Annals and Mag. Nat. Hist., XIX, 21, note; Trans. Amer. Ent. Soc., XXII, note.—Vera Cruz, Mex.; Jamaica.

Sea Cliff, N. Y.—Banks; N. J.—Smith Cat.; Fla.—Johnson.

infuscatus BIGOT, Annales, 1883, 324 (*infuscatus* and *fraternus*); 1884, 251 (*fencstratus*).—Mexico. [Will.]

GIGLIO-TOS, Ditt. del Mess., II, 55, oc. and note (*fencstratus*).—Orizaba, Mex.

WILLISTON, Biologia, Dipt., III, 30, may not be distinct from *funebis*.

iris AUSTEN, Proc. Zool. Soc. Lond., 1893, 133, pl. IV, f. 1.—Jamaica.

latisculus LOEW, Cent., VII, 68.—Cuba.

WILLISTON, Synop. N. A. Syrph., 122 (*Baccha*).—San Domingo.

Porto Rico—Roeder and Coquillett; Jamaica—Johnson.

notatus COQUILLETT, Canad. Ent., 1902, 195.—Frontera in Tabasco, Mex.

rufiventris BIGOT, Annales, 1883, 325.—Cuba.

scutellatus LOEW, Cent., VII, 69.—Cuba.

trigonus WIEDEMANN, Auss. Zweifl., II, 126 (*Syrphus*).—Brazil.

WALKER, Trans. Ent. Soc., n. ser., IV, 156 (*Pipiza pica*).—Amazon River. [Austen.]

SCHINER, Novara, 346.—Columbia, S. A.

WILLISTON, Trans. Amer. Ent. Soc., XV, 264, 265 (*trigonus* and *gastrostactus* WIED.); Synop. N. A. Syrph., 124 (*Baccha torva*); Biologia, Dipt., III, 18 and 30 (*Syrphus* sp.? and *O. trigonus*); Ent. News, III, 146, note and bibl.—Brazil; Texas; Guerrero and N. Yucatan, Mex.

SNOW, Suppl. List, Kans. Univ. Quart., III, 255, syn.

F. LYNCH ARRIBALZAGA, Dipt. Argentina, 254.—Argentina.

GIGLIO-TOS, Ditt. del Mess., II, 54, oc. in Mexico, several places.

SALPINGOGASTER.

SCHINER, Novara, 344, 1868.

WILLISTON, Synop. N. A. Syrph., 298, 1886; Biologia, Dipt., III, 28, 1891, table of species.

cothurnata BIGOT, Annales, 1883, 329.—Mex.

limbipennis WILLISTON, Biologia, Dipt., III, 29.—Guerrero, Mex.

nigra SCHINER, Novara, 345.—S. A.

WILLISTON, Trans. Amer. Ent. Soc., XV, 270; Biologia, Dipt., III, 29, oc. and syn.—Brazil; Guatemala and Panama.

BIGOT, Annales, 1883, 328 (*anchoratus*).—Mexico.

GIGLIO-TOS, Ditt. del Mess., II, 22, notes, etc.—Orizaba, Mex.

nova GIGLIO-TOS, Boll. R. Univ. Torino, VII, No. 123, 1892; Ditt. del Mess., II, 23, pl. II, f. 3.—Mex.

pygophora SCHINER, Novara, 344.—No locality.

WILLISTON, Trans. Amer. Ent. Soc., XV, 270.—Mexico.

PYROPHÆNA.

SCHINER, Wien. Ent. Monatsch., IV, 213, 1860; Fauna Austriaca, I, 297, 1864.

WILLISTON, Synop. N. A. Syrph., 54, def. and table of species, 1886.

VERRALL, Brit. Flies, VIII, 299, 1901.

CHAGNON, Ét. Prélim. les Syrph., 29, 1901.

granditarsus FORSTER, N. Sp. Ins., Cent., I, 99 (*Musca granditarsa*).—Europe.

Note.—Hagen gives 1781 as the date of the preceding; Verrall gives 1771.

FABRICIUS, Mantissa Ins., II, 341 (*Syrphus ocymi*); Ent. Syst., IV, 307 (id.); Syst. Antl., 252 (*Scæva ocymi*).

HARRIS, Expl. Engl. Ins., 110, pl. XXXIII, f. 51 (*Musca confusus*).

PANZER, Fauna Germ., LXXXII, 18 (*Syrphus ocymi*).

FALLÉN, Syrphidi, 48 (*Scæva ocymi*).

MEIGEN, Syst. Besch., III, 337 (*Syrphus ocymi*).

MACQUART, Hist. Nat. Dipt., I, 546 (id.).

ZETTERSTEDT, Dipt. Scand., II, 754 and VIII, 3152 (*Scæva ocymi*).

STEGE, Kröyer's Tidsskr., IV, 326 (*Platycheirus ocymi*).

WALKER, Ins. Brit., Dipt., I, 295, restores Forster's name.

SCHINER, Verh. Zool.-Bot. Ges., VII, 362 (*ocymi*); Fauna Austr., I, 297 (id.).

OSTEN SACKEN, Cat., 122 (id.), oc. in N. A.—Mass., White Mts., N. H., Quebec, Athabasca, L., etc.

WILLISTON, Synop. N. A. Syrph., 55, pl. III, f. 13 (id.).—Wash., Labrador.

VERRALL, Brit. Flies, VIII, 300, figs.

Montreal—Chagnon; White Mts., N. H.—Slosson (both *ocymi*).

ocymi FABRICIUS, see *granditarsus*.

rosarum FABRICIUS, Mantissa Ins., II, 341 (*Syrphus*); Ent. Syst., IV, 307 (id.);

Syst. Antl., 251 (*Scæva*).—Europe.

FALLÉN, Syrphidi, 47 (*Scæva*).

MEIGEN, Syst. Besch., III, 338 (*Syrphus*).

ZETTERSTEDT, Dipt. Scand., II, 755 and VIII, 3152 (*Scæva*).

SCHINER, Verh. Zool.-Bot. Ges., VII, 357; Fauna Austr., I, 298.

OSTEN SACKEN, Cat., 122, oc. in N. A.—Mass. and White Mts., N. H.

WILLISTON, Synop. N. A. Syrph., 55, desc. quoted.

VERRALL, Brit. Flies, VIII, 392, figs.

PLATYCHIRUS.

ST. FARGEAU et SERVILE, Encycl. Méth., X, 513, 1825 (*Platycheirus*).

SCHINER, Fauna Austr., I, 292, 1862.

WILLISTON, Synop. N. A. Syrph., 56, def. and table of species, 1886.

VERRALL, Brit. Flies, VIII, 262, 1901.

CHAGNON, Ét. Prélim. les Syrph., 28, 1901.

æratus COQUILLETT, Proc. Wash. Acad. Sci., II, 430.—Muir Inlet, Alaska.

albimanus FABRICIUS, Spec. Ins., II, 434 (*Syrphus*); Syst. Antl., 253 (*Scæva*).—Europe.

MEIGEN, Syst. Besch., III, 333 (*Syrphus*).

WALKER, Ins. Brit., I, 294.

SCHINER, Fauna Austr., I, 294.

BIGOT, Annales, 1884, 75 (*ciliatus*).—Cal.

WILLISTON, Synop. N. A. Syrph., 59 (*ciliatus*).—Col.

COQUILLETT, Proc. Wash. Acad. Sci., II, 430, oc. in Alaska.

VERRALL, Brit. Flies, VIII, 280, 675, figs., desc. and syn. of Bigot, from his type.—England.

White Mts., N. H.—Slosson (*ciliatus*).

chætopodus WILLISTON, Synop. N. A. Syrph., 59.—Wash.

SNOW, Kans. Univ. Quart., III, 231, note.—Col.

ciliatus BIGOT, see *albimanu*s.

✓ **hyperboreu**s STÆGER, Grœnl. Antl., 362 (*Syrphus*).—Greenland.

HOLMGREN, Ins. Nordgrœnl., 100 (*Scæva*).—Greenland.

WILLISTON, Synop. N. A. Syrph., 57, pl. III, f. 12.—N. Y., Col., Pa., White Mts., N. H.

SNOW, Kans. Univ. Quart., III, 231, notes.—Col.

CHAGNON, Ét. Prélim. les Syrph., 29.—Montreal.

N. J.—Smith Cat.; Axton, N. Y.—M. and H.; Sea Cliff, N. Y.—Banks.

naso WALKER, List, III, 587 (*Syrphus*).—Martin Falls, Canada.

OSTEN SACKEN, Cat., 244, note on type and gen. ref.

pacilus WALKER, Dipt. Saund., 240 (*Syrphus*).—N. A.

OSTEN SACKEN, Cat., 244, note on type and gen. ref.

palmulosus SNOW, Kans. Univ. Quart., III, 231.—Col.

✓ **peltatu**s MEIGEN, Syst. Besch., III, 334 (*Syrphus*).—Europe.

FALLÉN, Syrphidi, 46 (*Scæva albimana*).

ZETTERSTEDT, Dipt. Scand., II, 747; VIII, 4145 (both *Scæva*).

STÆGER, Krøyer's Tidskr., IV, 320.

SCHINER, Fauna Austr., I, 295.

OSTEN SACKEN, Cat., 122, oc. in N. A.—Alaska and West. N. Y.

- WILLISTON, Synop. N. A. Syrph., 58, pl. III, f. 11.—White Mts., N. H., Pa.
 VERRALL, Brit. Flies, VIII, 274, figs.
 Alaska—Coquillett and Johnson.
quadratus SAY, Jour. Acad. Sci. Phil., III, 90; Compl. Works, II, 79 (*Scæva*).—U. S.
 WIEDEMANN, Auss. Zweifl., II, 135 (*Syrphus*).—Pa.
 MACQUART, Dipt. Exot., Suppl. v, 95 (*Syrphus fuscianipennis*).—Baltimore.
 [Osten Sacken, Cat., 122.]
 WILLISTON, Synop. N. A. Dipt., 57, pl. III, f. 10.—U. S. generally.
 COQUILLETT, Proc. Wash. Acad. Sci., II, 428, oc.—Alaska, several places.
 CHAGNON, Ét. Prélim. les Syrph., 28.—St. Jean and Montreal, Quebec.
tenebrosus COQUILLETT, Proc. Wash. Acad. Sci., II, 428.—Alaska, several places.

MELANOSTOMA.

- SCHINER, Wien. Ent. Monatsch., IV, 213, 1860; Fauna Austr., I, 289, 1862.
 WILLISTON, Synop. N. A. Syrph., 46, def. and table of species; Biologia, Dipt., III, 9, table of Central American spp., 1891.
 VERRALL, Brit. Flies, VIII, 303, 1901.
 CHAGNON, Ét. Prélim. les Syrph., 25, 1901.
ambiguum FALLÉN, Syrphici, 47 (*Syrphus*).—Europe.
 SCHINER, Fauna Austr., I, 291.
 ? STÆGER, Grœnl. Antl., 361, doubtfully ident. from Greenland.
 LUNDBECK, Dipt. Grœnl., I, 300, oc. in Greenland.
 VERRALL, Brit. Flies, VIII, 304, 675; has seen specimens from N. A.
angustatum WILLISTON, Synop. N. A. Syrph., 50, pl. III, f. 7.—Wash. White Mts., N. H.—Slosson.
 ? **annuliferum** BIGOT, Annales, 1884, 84 (*M. ? annulifera*).—Mex.
 WILLISTON, Biologia, Dipt., III, 14, note; cannot be a *Melanostoma*.
 ? **anthracoides** BIGOT, Annales, 1884, 82.—Panama. Query by Bigot.
 WILLISTON, Biologia, Dipt., III, 14, note; more likely *Ocyptamus*.
 ? **bicruciatum** BIGOT, Annales, 1884, 79.—Cal. Query by Bigot.
 WILLISTON, Synop. N. A. Syrph., 53, quotes desc.
bucephalus WIEDEMANN, Auss. Zweifl., II, 126 (*Syrphus*).—Brazil.
 WILLISTON, Trans. Amer. Ent. Soc., XV, 264; Biologia, Dipt., III, 11.—Brazil; Guerrero, Mex.
 GIGLIO-TOS, Ditt. del Mess., II, 34.—Orizaba, Mex.
catabomba WILLISTON, Biologia, Dipt., III, 12.—Guerrero, Mex.
 GIGLIO-TOS, Ditt. del Mess., II, 38.—Meztillan and Orizaba, Mex.
cœrulescens WILLISTON, Synop. N. A. Syrph., 49.—Col.
 CHAGNON, Ét. Prélim. les Syrph., Sherbrooke, Quebec.
concinnum SNOW, Kans. Univ. Quart., III, 229.—N. M. and Col., up to 10,000 ft.
 SNOW, Kans. Univ. Quart., I, 35 (*M.*, n. sp.?).
crenulatum WILLISTON, Biologia, Dipt., III, 12, pl. I, f. 5.—Guerrero, Mex.
 ? GIGLIO-TOS, Ditt. del Mess., II, 40, doubtfully ident. from Mex.
cruciatum BIGOT, see *mellinum*.
cyaneocinctum BIGOT, Annales, 1885, 251.—Mex.
elegans GIGLIO-TOS, Boll. R. Univ. Torino, VII, No. 132, 1892; Ditt. del Mess., II, 39, pl. II, f. 21.—Orizaba, Mex.
fenestratum MACQUART, Dipt. Exot., II, 2, 103, pl. XVII, f. 6 (*Syrphus*).—Chili.
 BLANCHARD, in Gray's Hist., etc., Chile, VII, 413 (id.).
 PHILIPPI, Aufzählung d. Chilen' schen Dipt., 746 (id.).
 SCHINER, Novara, 351.—S. A.
 WILLISTON, Biologia, Dipt., III, 10.—Guerrero and Durango, Mex.

glaciale JOHNSON, see *Syrphus*.

kelloggi SNOW, Kans. Univ. Quart., III, 230.—Col.

melanocera WILLISTON, Biologia, Dipt., III, 13.—Costa Rica.

mellinum LINNÉ, Syst. Nat., 10th ed., 594 (*Musca*); Fauna Suec., 2d ed., 449 (id.).—Europe.

SCOPOLI, Ent. Carn., 346 (id.).

FABRICIUS, Syst. Ent., 771; Ent. Syst., IV, 308 (*Syrphus*); Syst. Antl., 257 (*Scæva*).

FALLÉN, Syrphici, 46 (*Scæva*).

MEIGEN, Syst. Besch., III, 328, 329, 331 (*Syrphus mellarius, melliturgus, and mellinus*).

ZETTERSTEDT, Dipt. Scand., II, 759 (*Scæva*).

SCHINER, Verh. Zool.-Bot. Ges., VII, 355; Fauna Austr., I, 292.

KOWARZ, Wien. Ent. Zeit., IV, 201.

BIGOT, Annales, 1884, 76, 79 (*M.? annulata* and *M.? pruinosa*).—Sierra Leone and Cal. [Verrall.]

BIGOT, Annales, 1884, 81 (*M.? cruciatum*).—Mex. [Williston; there may be some doubt as to this, for Verrall, who has Bigot's types, does not mention this synonym.]

WILLISTON, Synop. N. A. Syrph., 49, pl. III, f. 9. desc. and syn.; Biologia, Dipt., III, 11, oc. and notes.—U. S. and Mexico, common.

GIGLIO-TOS, Ditt. del Mess., II, 37, bibliog., etc.—Mexico.

HUNTER, Canad. Ent.; XXIX, 129, oc. in Alaska.

CHAGNON, Ét. Prélim. les Syrph., 27.—Quebec.

VERRALL, Brit. Flies, VIII, 309, 51, exhaustive bibliography.

N. A., in nearly all local lists.

obscurum SAY, Amer. Entom., I, pl. XI; Compl. Works, I, 23 (*Syrphus*).—Pa., Va.

WIEDEMANN, Auss. Zweifl., II, 131, transl. from Say.

WILLISTON, Synop. N. A. Syrph., 48.—White Mts., N. H., Conn., Pa.

CHAGNON, Ét. Prélim. les Syrph., 26.—Montreal and Rigaud, Quebec.

N. J.—Smith Cat.; Sea Cliff, N. Y.—Banks.

? **pachytarsis** BIGOT, Annales, 1884, 80.—Cal. Query by Bigot.

WILLISTON, Synop. N. A. Syrph., 54, quotes orig. desc.

? **pictipes** BIGOT, Annales, 1884, 78.—Cal. Query by Bigot.

WILLISTON, Synop. N. A. Dipt., 53, quotes orig. desc.

? **quadrinotatum** BIGOT, Annales, 1884, 77.—Mex. Query by Bigot.

WILLISTON, Biologia, Dipt., III, 14, note, not seen.

? **rufipes** WILLISTON, Proc. Amer. Phil. Soc., XX, 306 (*Chilosia*); Synop. N. A. Syrph., 47.—Wash. Doubt by Williston.

HUNTER, Ent. News, VII, 216, male, etc.

rugonasus WILLISTON, Biologia, Dipt., III, 13.—Guerrero, Mex.

stegnum SAY, Jour. Acad. Sci. Phil., VI, 163; Compl. Works, II, 358 (*Syrphus*).—Mex.

MACQUART, Dipt. Exot., II, 2, 103, pl. XVI, f. 6 (*Syrphus fenestratus*).—Chili.

SCHINER, Novara, 351 (id.).—S. A.

THOMSON, Eugen. Resa, 502 (*Syrphus trichopus*).—Cal.

PHILIPPI, Aufzähl. d. Chil. Dipt., 746 (id.).—Chili.

OSTEN SACKEN, West. Dipt., 323 (*tigrina*).—Cal.

BIGOT, Annales, 1884, 80 (*M.? rostratum*).—Cal.

WILLISTON, Trans. Amer. Ent. Soc., XV, 10 (*stegnum* and *fenestratum*);

- Synop. N. A. Syrph., 47, pl. III, f. 8 (*tigrinum*); Biologia, Dipt., III, 10; Ent. News, III, 145, bibl.—Brazil; Wash., Cal., Col., Ariz.; Mex.
 VAN DER WULP, Tijdschr. v. Ent., XXXI, 375 (*punctulata*).—Argentina.
 GIGLIO-TOS, Ditt. del Mess., II, 36, bibl., etc.—Mex.
 SNOW, Kans. Univ. Quart., I, 35, notes; III, 229, oc.—Col.
 COQUILLET, Proc. Wash. Acad. Sci., II, 428, recognizes *trichopus* as a distinct species, from Alaska.
trichopus THOMSON, see *stegnum*.

LEUCOZONA.

- SCHINER, Wien. Ent. Monatsch., IV, 214, 1860; Fauna Austr., I, 298, 1862.
 WILLISTON, Synop. N. A. Syrph., 61, 1886.
 MIK, Wien. Ent. Zeit., XVI, 62, notes, 1897.
 VERRALL, Brit. Flies, VIII, 319, 1901.
lucorum LINNÉ, Syst. Nat., 10th ed., 591 (*Musca*); Fauna Suec., 2d ed., 445 (id.).—Europe.
 FABRICIUS, Spec. Ins., II, 426 (*Syrphus*); Ent. Syst., IV, 291 (id.); Syst. Antl., 241 (*Eristalis*); also described as *asiliformis* in the same works.
 FALLÉN, Syrphici, 50 (*Eristalis*).
 MEIGEN, Syst. Besch., III, 313 (*Syrphus lucorum* and *asiliformis*).
 SCOPOLI, Ent. Carniol., No. 908 (*Conops præcinctus*).
 ZETTERSTEDT, Dipt. Scand., II, 778 (*Eristalis*).
 SCHINER, Fauna Austr., I, 299.
 WILLISTON, Synop. N. A. Syrph., 62, pl. III, f. 6.—Wash., Col.
 OSTEN SACKEN, Cat., 122, oc. in N. A.—Brit. Poss., Quebec.
 COQUILLET, Proc. Wash. Acad. Sci., II, 430, oc. in Alaska.
 VERRALL, Brit. Flies, VIII, 319, 53, fuller bibliog., etc.

EUPEODES.

- OSTEN SACKEN, West. Dipt., 328, 1877.
 WILLISTON, Synop. N. A. Syrph., 64, 1886.
volucris OSTEN SACKEN, West. Dipt., 329.—Cal., Utah, Col.
 BIGOT, Annales, 1884, 90 (*Syrphus peripallidus*).—N. A. [Will.]
 WILLISTON, Synop. N. A. Syrph., 66, pl. III, f. 14.—Kans. westward to the coast, common.
 WILLISTON, Biologia, Dipt., III, 14, oc. in Mexico.
 SNOW, Kans. Univ. Quart., III, 232, note on dist.
 GIGLIO-TOS, Ditt. del Mess., II, 27, notes.—Mex.
 TOWNSEND, Psyche, 1897, 127 and 148, notes; Jour. N. Y. Ent. Soc., VI, 50, notes.—N. M.; Texas.
 Reared from larvæ feeding on grain Aphis, *Siphonophora avenæ*, at Moscow, Ida.—J. M. A.

DIDEA.

- MACQUART, Hist. Nat. Dipt., I, 508, 1834.
 MEIGEN, Syst. Besch., VII, 140, 1838 (*Enica*).
 SCHINER, Fauna Austr., I, 313, 1862.
 WILLISTON, Synop. N. A. Syrph., 89, 1886.
 VERRALL, Brit. Flies, VIII, 325, 1901.
coquilletti WILLISTON, Biologia, Dipt., III, 19, pl. I, f. 9.—Guerrero, Mex.
 GIGLIO-TOS, Ditt. del Mess., II, 21.—Solco, Mex.
fasciata MACQUART, Hist. Nat. Dipt., I, 508, pl. II, f. 15.—Europe.
 MEIGEN, Syst. Besch., VII, 140 (*Enica farsteri*).

LOEW, Cent., iv, 82 (*fuscipes*).—Pa.

OSTEN SACKEN, Cat., 245, note 212, makes *fuscipes* a var.

WILLISTON, Synop. N. A. Syrph., 89 (*fasciata*, var. *fuscipes*).—Conn., N. M., S. D.

VERRALL, Brit. Flies, viii, 328.

N. J.—Smith Cat.; White Mts., N. H.—Slosson; Quebec—Wulp.

laxa OSTEN SACKEN, Bull. Buff. Soc. Nat. Sci., iii, 56; Cat., 245, redesc.—L. Superior, Maine, Mt. Washington.

WILLISTON, 90, pl. iv, f. 4; Biologia, Dipt., iii, 18, oc. and note.—White Mts., N. H., Ore., Wash., Cal.; Mexico.

COQUILLETT, Proc. Wash. Acad. Sci., ii, 433, oc. in Alaska.

LASIOPHTHICUS.

RONDANI, Dipt. Ital. Prod., i, 51, 1856; ii, 137, 1857.

OSTEN SACKEN, West. Dipt., 325, 1877; Cat., 1878, 244 (both *Catabomba*).

BIGOT, Bull. Soc. Ent. France, 1882, No. 2, p. 20, syn.

WILLISTON, Synop. N. A. Syrph., 62, 1886 (*Catabomba*).

VERRALL, Brit. Flies, viii, 333, 1901 (id.).

Notc.—I dissent from the conclusions of Osten Sacken and Verrall in adopting Rondani's name here. In the first reference above, Rondani says, "Spec: typ: *Musca pyrastris* LIN." and mentions no other species. Hence the proper procedure, in case the genus is illy conceived, is to revise its definition, rather than to make its type *the type* of another genus. I here use *Lasiophthicus* as if this had been done, exactly in the sense of *Catabomba*.

pyrastris LINNÉ, Syst. Nat., 10th ed., 594 (*Musca*); Fauna Suec., 2d ed., 448 (id.).—Europe.

FABRICIUS, Spec. Ins., ii, 432 (*Syrphus*); Ent. Syst., iv, 305, 306 (*Syrphus pyrastris* and *transfuga*); Syst. Antl., 249, 250 (*Scæva pyrastris* and *transfuga*).—Europe.

FALLÉN, Syrphici, 39 (*Scæva*).

MEIGEN, Syst. Besch., iii, 303 (*Syrphus*).

SAY, Jour. Acad. Sci. Phil., iii, 99 (*Syrphus affinis*); Compl. Works, ii, 81 (id.).—Arkansas.

WIEDEMANN, Auss. Zweifl., ii, 117 (*S. affinis*).

MACQUART, Hist. Nat. Dipt., i, 536 (*Syrphus*).

ZETTERSTEDT, Dipt. Scand., ii, 703 and viii, 3132 (both *Scæva*).

CURTIS, Brit. Ent., 509, var. *unicolor*, which occurs also in Idaho.

SCHINER, Verh. Zool.-Bot. Ges., vii, 338; Fauna Austr., i, 301 (both *Syrphus*).

OSTEN SACKEN, West. Dipt., 325 (*Catabomba*).—Cal., Utah, Col.

WILLISTON, Synop. N. A. Syrph., 63, pl. iv, f. 1 (*Catabomba*).—Kans. to Ariz. and Wash.

SNOW, Kans. Univ. Quart., iii, 232, note on dist. (*Catabomba*).

VERRALL, Brit. Flies, viii, 334 (*Catabomba*); on p. 619 is a reference (Ent. Mo. Mag., xxxiv, 244) to an alleged rearing of this fly from pupæ of a species of *Plusia*, which is probably an error, as I have reared it from larvæ feeding on the grain *Aphis*, *Siphonophora avenæ*.

Very common in the U. S., west of the hundredth meridian—J. M. A.

SYRPHUS.

FABRICIUS, Syst. Ent., 762, 1775; Syst. Antl., 248, 1805 (*Scæva*).

MEIGEN, Syst. Besch., iii, 274, 1822.

- SCHINER, Fauna Austr., I, 300, 1862.
- OSTEN SACKEN, Boston Soc. Nat. Hist., XVIII, 1875, 135-153.
- BIGOT, Bull. Soc. Ent. France, 1882, No. 6 (*Ischyrosyrphus* and *Ancyclosyrphus*); Annales, 1883, 251, 256 (id.).
- WILLISTON, Synop. N. A. Syrph., 66, def. and table of species; Biologia, Dipt., III, 15, table of Central American species, 1891.
- GIRSCHNER, Ill. Wochenschr. f. Ent., II, 569.
- VERRALL, Brit. Flies, VIII, 321 and 338, 1901 (*Ischyrosyrphus* and *Syrphus*).
- CHAGNON, Ét. Prélim. les Syrph., 30, 1901, with table of Quebec spec.
- abbreviatus** ZETTERSTEDT, Dipt. Scand., VIII, 3136 (*Scæva*).—Europe.
- SCHINER, Fauna Austr., I, 311 (*cxcisus*, in part).—Europe.
- OSTEN SACKEN, Bost. Soc. Nat. Hist., XVIII, 144.—Mass.
- WILLISTON, Synop. N. A. Syrph., 81.—Conn., Mass.
- CHAGNON, Ét. Prélim. les Syrph., 33.—Montreal.
- adolescens** WALKER, List, III, 584.—Martin Falls and Nova Scotia, Canada.
- æscytes** WALKER, see *Chilosia*.
- agilis** BIGOT, Annales, 1884, 92.—Mex.
- agnon** WALKER, see *arcuatus*.
- amalopis** OSTEN SACKEN, Proc. Bost. Soc. Nat. Hist., XVIII, 148, 175.—White Mts., N. H.
- WILLISTON, Synop. N. A. Syrph., 69.—Conn., N. M.
- COQUILLET, Proc. Wash. Acad. Sci., II, 431, oc. in Alaska.
- Axton, N. Y.—M. and H.
- americanus** WIEDEMANN, Auss. Zweifl., II, 129.—N. A.
- OSTEN SACKEN, Proc. Bost. Soc. Nat. Hist., XVIII, 145.—Mass., Mich., Texas.
- WILLISTON, Synop. N. A. Syrph., 82.—New Eng., Mont.
- CHAGNON, Ét. Prélim. les Syrph., 34.—Montreal and St. Jean, Quebec.
- RILEY, Rept. Dept. Agr., 1889, 351, mentions the larva feeding on grain *Aphis*, *Siphonophora avenæ*.
- SNOW, Kans. Univ. Quart., III, 236, notes.—Col., N. M.
- WILLISTON, Biologia, Dipt., III, 15, oc.—Guerrero, Mex.
- N. J.—Smith Cat.; Fla.—Johnson; Sea Cliff, N. Y.—Banks; Chatham, Mich.—Pettit.
- antiphates** WALKER, see *Ocyptamus*.
- arcuatus** FALLÉN, Syrphici, 42 (*Scæva*).—Europe.
- MEIGEN, Syst. Besch., III, 302.
- MACQUART, Hist. Nat. Dipt., I, 536.
- ZETTERSTEDT, Ins. Lapp., 598 (*Scæva lapponica*); Dipt. Scand., II, 719 and VIII, 3138 (*Scæva*).
- WALKER, List, III, 579, 580 (*agnon*, *alcidice*, and *arcuinctus*).—Martin Falls and Nova Scotia.
- SCHINER, Verh. Zool.-Bot. Ges., VII, 344 (*arcuatus* and *lapponicus*); Fauna Austr., I, 305.
- OSTEN SACKEN, Proc. Bost. Soc. Nat. Hist., XVIII, 149; West. Dipt., 326 (*lapponicus*).—White Mts., N. H.; Cal.
- GIRSCHNER, Wien. Ent. Zeit., III, 187, pl. III, f. 1 (var. *bipunctatus*, which is Walker's *alcidice*). [Will.]
- WILLISTON, Synop. N. A. Syrph., 68, syn., etc.—New Eng. to Cal.
- SNOW, Kans. Univ. Quart., I, 36, notes.—Col.
- COQUILLET, Proc. Wash. Acad. Sci., II, 431, oc. in Alaska.
- VERRALL, Brit. Flies, VIII, 380.

CHAGNON, Ét. Prélim. les Syrph., 32.—St. Jean, Quebec.

N. A., in nearly all local lists.

arcucinctus WALKER, see *arcuatus*.

bisinuatus WILLISTON, Biologia, Dipt., III, 17.—Guerrero, Mex., and Costa Rica.

GIGLIO-TOS, Ditt. del Mess., II, 28.—Oaxaca, Orizaba and Tehuacan, Mex.

boscii MACQUART, see *Mesogramma*.

bryantii JOHNSON, see *contumax*.

coalescens WALKER, see *Mesogramma*.

colludens WALKER, Trans. Ent. Soc., n. ser., v, 292.—Mex.

concaus SAY, Jour. Acad. Sci. Phil., III, 89 (*Scava*); Compl. Works, II, 78.—Pa.

Perhaps same as *torvus*—O. S., Cat., 123.

contumax OSTEN SACKEN, Proc. Bost. Soc. Nat. Hist., XVIII, 148.—White Mts., N. H.

WALKER, List, III, 584 (*adolescens*).—Martin Falls and Nova Scotia.

WILLISTON, Synop. N. A. Syrph., 71.—White Mts., N. H.

COQUILLET, Proc. Wash. Acad. Sci., II, 431, oc. in Alaska.

JOHNSON, Ent. News, IX, 17 (*bryantii*).—Mt. St. Elias, Alaska. [Johnson, in litt.]

Note.—Walker's types, as quoted by Osten Sacken, Cat., 245, note, belong to three species; hence his name is not entitled to priority.

corbis WALKER, see *Mesogramma*.

creper SNOW, Kans. Univ. Quart., III, 234.—Col. and N. M.

SNOW, *ibid.*, I, 37 (*pauvillus* WILL.).

N. M.—Coquillett.

decipiens WILLISTON, Biologia, Dipt., III, 18.—Guerrero, Mex.

delineatus MACQUART, Dipt. Exot., Suppl. I, 139, pl. XI, f. 13.—Mex.

dimensus WALKER, see *Allograpta obliqua*.

dimidiatus MACQUART, Hist. Nat. Dipt., I, 537.—Ga.

WILLISTON, Synop. N. A. Syrph., 294, cannot be identified.

disgregus SNOW, Kans. Univ. Quart., III, 233.—N. M., 7,500-8,500 ft.

disjunctus WILLISTON, Proc. Amer. Phil. Soc., XX, 314 (*disjunctus* MACQ.);

Synop. N. A. Syrph., 72.—Wash.

SNOW, Kans. Univ. Quart., I, 36, note on female.—Col.

White Mts., N. H.—Slosson.

diversipes MACQUART, Dipt. Exot., Suppl. IV, 155.—Newfoundland.

OSTEN SACKEN, Proc. Bost. Soc. Nat. Hist., XVIII, 149.—L. Superior.

WILLISTON, Synop. N. A. Syrph., 76.—White Mts., N. H.; N. Y., Wash.

COQUILLET, Proc. Wash. Acad. Sci., II, 431, oc. in Alaska.

VERRALL, Brit. Flies, VIII, 676.

CHAGNON, Ét. Prélim. les Syrph., 34.—Rigaud, Quebec.

diversus WILLISTON, Biologia, Dipt., III, 16, pl. I, f. 6.—Guerrero, Mex.

dryadis HOLMGREN, see *tarsatus*.

eupeltatus BIGOT, Annales, 1884, 91.—Mex.

WILLISTON, Biologia, Dipt., III, 16, notes.—Guerrero, Mex.

GIGLIO-TOS, Ditt. del Mess., II, 29.—Angang, Mex.

fumipennis THOMSON, Eugen. Resa, 499.—Cal.

WILLISTON, Synop. N. A. Syrph., 293, notes; quotes desc.

geniculatus MACQUART, Dipt. Exot., II, 2, 101, pl. XVII, f. 5.—Newfoundland.

OSTEN SACKEN, Proc. Bost. Soc. Nat. Hist., XVIII, 159; Cat., 245, note on type.—White Mts., N. H.

WILLISTON, Synop. N. A. Syrph., 84, pl. IV, f. 3.—White Mts., N. H.

Alaska—Coquillett and Johnson.

- genualis** WILLISTON, Synop. N. A. Syrph., 86.—N. H.
Beulah, N. M.—Skinner.
- glacialis** JOHNSON, Ent. News, 1898, 18 (*Melanostoma*).—Alaska.
COQUILLETT, Proc. Wash. Acad. Sci., 11, 433, oc. in Alaska, and gen. ref.
[**gracilis** MEIGEN, of Walker, was wrongly identified; see Osten Sacken, Cat., 122.]
- gracilis** COQUILLETT, Proc. Wash. Acad. Sci., 11, 432.—Juneau, Alaska.
- grossulariæ** MEIGEN, Syst. Besch., 111, 306.—Europe.
MACQUART, Hist. Nat. Dipt., 1, 542; Dipt. Exot., 11, 2, 92, pl. xvi, f. 3 (*lescurii*).—Europe; Philadelphia.
ZETTERSTEDT, Dipt. Scand., 11, 705 and XIII, 5091 (both *Scæva*).
WALKER, Dipt. Saund., 242, pl. vi, f. 5 (*Epistrophe conjungens*).—U. S.
SCHINER, Fauna Austr., 1, 310.
OSTEN SACKEN, Proc. Bost. Soc. Nat. Hist., XVIII, 143 (*lescurii*).—N. and Mid. States.
WILLISTON, Synop. N. A. Syrph., 80, pl. iv, f. 2 (*lescurii*).—White Mts., N. H.; Wash.
CHAGNON, Ét. Prélim. les Syrph., 36 (id.).—St. Hilaire, Quebec.
VERRALL, Brit. Flies, VIII, 675, syn.
N. J.—Smith Cat.; White Mts., N. H.—Slosson.
- gurgus** WALKER, see *Mesogramma boscii*.
- hecticus** JÆNNICKE, see *Mesogramma polita*.
- interrogans** WALKER, see *Mesogramma geminata*.
- intrudens** OSTEN SACKEN, West. Dipt., 326.—Cal.
WILLISTON, Synop. N. A. Syrph., 70, quotes desc.
SNOW, Kans. Univ. Quart., 111, 232, note.—Col.
HUNTER, Canad. Ent., XXIX, 129, notes.—Cook's Inlet, Alaska.
Hudsonian Zone, N. M.—Cockerell.
- jactator** LOEW, Wien. Ent. Monatsch., v, 40; Cent., vi, 46.—Cuba.
- latrans** WALKER, see *Chilosia*.
- lautus** GIGLIO-TOS, Boll. R. Univ. Torino, VII, No. 132, 1892; Ditt. del Mess., 11, 29, pl. 11, f. 4.—Tuxpango, Mex.
- lesueurii** MACQUART, see *grossulariæ*.
- limbatus** FABRICIUS, Syst. Antl., 251 (*Scæva*).—W. I.
WIEDEMANN, Auss. Zweifl., 11, 133.
- lotus** WILLISTON, Synop. N. A. Syrph., 75; Biologia, Dipt., 111, 16, oc.—Ariz.; Guerrero, Mex.
- lunulatus** MEIGEN, Syst. Besch., 111, 299.—Europe.
SCHINER, Fauna Austr., 1, 303.
LUNDBECK, Dipt. Grœnl., 1, 302, oc. in Greenland.
VERRALL, Brit. Flies, VIII, 351.
- macularis** ZETTERSTEDT, Dipt. Scand., 11, 730 (*Scæva*).—Europe.
SCHINER, Fauna Austr., 1, 302.
COQUILLETT, Proc. Wash. Acad. Sci., 11, 433, oc. in N. A.—Yakutat, Alaska.
- maculifrons** BIGOT, Annales, 1884, 89.—Ore.
WILLISTON, Synop. N. A. Dipt., 88, quotes desc.
- [**maculosus** MEIGEN, of Walker, was wrongly identified; see Osten Sacken, Cat., 122.]
- mentalis** WILLISTON, Synop. N. A. Syrph., 72.—Wash.
HUNTER, Canad. Ent., XXIX, 130, note.—Cook's Inlet, Alaska.
COQUILLETT, Proc. Wash. Acad. Sci., 11, 431, oc. in Alaska.
- montivagus** SNOW, Kans. Univ. Quart., 111, 236.—Col., 11,000–12,000 ft.

mutuus SAY, Jour. Acad. Sci., vi, 164; Compl. Works, ii, 358.—Mex.

nigripes LOEW, Cent., vi, 44.—Cuba.

ochrostoma ZETTERSTEDT, Dipt. Scand., viii, 3133 (*Scava*).—Europe.

SCHINER, Fauna Austr., i, 310.

VAN DER WULP, Tijdschr. v. Ent., xxv, 134, oc. in N. A.—Canada.

WILLISTON, Synop. N. A. Syrph., 293, note; not seen.

æstriformis WALKER, see *Eristalis*.

opinator OSTEN SACKEN, West. Dipt., 327.—Marin Co., Cal.

WILLISTON, Synop. N. A. Syrph., 83.—Wash., Ore., Cal.

TOWNSEND, Proc. Cal. Acad. Sci., iv, 612, notes.

SNOW, Kans. Univ. Quart., iii, 236.—Col., N. M.

pauxillus WILLISTON, Synop. N. A. Syrph., 74.—N. M.

See *creper*.

perpusillus BIGOT, see *Eupeodes volucris*.

philadelphicus MACQUART, Dipt. Exot., ii, 2, 93, pl. xvi, f. 2.—Philadelphia.

OSTEN SACKEN, Cat., 123, and note 209, perhaps same as *ribesii*.

præustus LOEW, Cent., vi, 45.—Cuba.

profusus WALKER, see *Milesia*.

protritrus OSTEN SACKEN, West. Dipt., 328.—Saucelito, Cal.

WILLISTON, Synop. N. A. Syrph., 77, quotes desc.

HUNTER, Canad. Ent., xxix, 130, oc. at Cook's Inlet, Alaska.

JOHNSON, Ent. News, xi, 17, oc. in Alaska.

pullulus SNOW, Kans. Univ. Quart., iii, 237.—N. M., 8,000 ft.

Beulah, N. M.—Skinner.

quadrifasciatus BIGOT, in Sagra's Cuba, 804, pl. xx, f. 5.—Cuba.

quinquelimbatus BIGOT, Annales, 1884, 91.—Cal.

WILLISTON, Synop. N. A. Syrph., 87, quotes orig. desc.

quintius WALKER, see *Mesogramma marginata*.

radiatus BIGOT, in Sagra's Cuba, 804.—Cuba.

ribesii LINNÉ, Syst. Nat., 10th ed., 593 (*Musca*); Fauna Suec., 2d ed., 447 (id.).—Europe.

FABRICIUS, Syst. Ent., 770; Spec. Ins., ii, 432; Ent. Syst., iv, 304; Syst. Antl., 248 (*Scava*).

LATREILLE, Gen. Crust., iv, 325.

FALLÉN, Syrphici, 40 (*Scava*).

MEIGEN, Syst. Besch., iii, 306.

KIRBY, Fauna Bor. Amer. (*Scava*); repub. in Canad. Ent., xiii, 167.—Canada.

ZETTERSTEDT, Dipt. Scand., ii, 707 (*Scava*); viii, 3132 (id.).

SCHINER, Verh. Zool.-Bot. Ges., vii, 340; Fauna Austr., i, 310.

OSTEN SACKEN, Proc. Bost. Soc. Nat. Hist., xviii, 140 (*rectus*); Cat., 123, syn.

WILLISTON, Synop. N. A. Syrph., 77.—Atlantic, Middle and Pacific States.

WILLISTON, Biologia, Dipt., iii, 17, notes.—Guerrero, Mex.

GIGLIO-TOS, Ditt. del Mess., ii, 27, bibl., etc.—Tehuacan, Mex.

CHAGNON, Ét. Prélim. les Syrph., 36.—Montreal.

VERRALL, Brit. Flies, viii, 366.

Alaska—Coquillett; also in almost all local lists of the United States.

ruficauda SNOW, Kans. Univ. Quart., i, 36, pl. vii, f. 3; iii, 234.—Col.; N. M.

saussurii GIGLIO-TOS, Ditt. del Mess., ii, 30.—Orizaba, Mex.

sexmaculata PALISOT DE BEAUVOIS, Ins., 224, pl. iii, f. 8.—S. States and San Domingo.

OSTEN SACKEN, Cat., 124, note.

- simplex** LOEW, Wien. Ent. Monatsch., v, 40; Cent., vi, 43.—Cuba.
 WILLISTON, Synop. N. A. Syrph., 87.—San Domingo.
- sodalis** WILLISTON, Synop. N. A. Syrph., 74.—Col.
- tarsatus** ZETTERSTEDT, Ins. Lapp., 601; Dipt. Scand., 730 (both *Scæva*).—N. Europe.
 STÆGER, Grœnl. Antl., 360, oc. in Greenland.
 SCHINER, Fauna Austr., i, 302.
 HOLMGREN, Ins. Spetsb., 26 (*Scæva dryadis*); Ins. Nordgrœnl., 100 (id.).
 —Spitzbergen; Greenland.
 WILLISTON, Synop. N. A. Dipt., 294.
 LUNDBECK, Dipt. Grœnl., i, 302, syn. of Holmgren.—Greenland. Ibid., ii, 310, the *Volucella lappona* of O. FABRICIUS, Fauna Grœnl., 208, 169, may be this species.
- torvus** OSTEN SACKEN, Proc. Bost. Soc. Nat. Hist., xviii, 139.—White Mts., N. H.; Mass., R. I., Canada, Col.
 ZETTERSTEDT, Ins. Lapp., 509 (*Scæva topiarius* MEIG.); Dipt. Scand., ii, 723 and viii, 3139 (id.).—N. Europe.
 WALKER, List, iii, 582 (*Syrphus topiarius* MEIG.), oc. in Europe, and at Martin Falls, Canada.
 SCHINER, Verh. Zool.-Bot. Ges., vii, 347; Fauna Austr., i, 304 (id.).
 WILLISTON, Synop. N. A. Syrph., 79.—Atlantic States and Wash.
 VERRALL, Brit. Flies, viii, 356.
 CHAGNON, Ét. Prélim. les Syrph., 35.—Rigaud, Quebec.
 N. J.—Smith Cat.
- tricolor** BIGOT, see *velutinus*.
- umbellatarum** FABRICIUS, Ent. Syst., iv, 307; Syst. Antl., 250 (*Scæva*).—Europe.
 SCHINER, Fauna Austr., i, 307.
 WALKER, List, iii, 586 (*guttatus* MEIG. and *sexquadratus*).—Martin Falls and Nova Scotia. [O. S. Cat., the former doubtful.]
 OSTEN SACKEN, Proc. Bost. Soc. Nat. Hist., xviii, 151.—White Mts., N. H.
 WILLISTON, Synop. N. A. Syrph., 85.—Ariz.
 CHAGNON, Ét. Prélim. les Syrph., 32.—Sherbrooke, Quebec.
 VERRALL, Brit. Flies, viii, 409, 676; important.
 Alaska—Johnson, Hunter; N. J.—Smith Cat.
Note.—Osten Sacken, Williston and Verrall all indicate doubt whether our American form be the same as the European *umbellatarum*.
- velutinus** WILLISTON, Proc. Amer. Phil. Soc., xx, 314; Synop. N. A. Dipt., 73.—Mt. Hood, Ore.
 BIGOT, Annales, 1884, 73 (*Ischyrosyrphus tricolor*).—Cal. [Will.]
 COQUILLETT, Proc. Wash. Acad. Sci., ii, 431, oc. in Alaska.
 VERRALL, Brit. Flies, viii, 321, would make *Ischyrosyrphus* a separate genus, and suspects *tricolor* to be a synonym of *laternarius* MÜLLER.
- xanthostoma** WILLISTON, Synop. N. A. Syrph., 86.—Pa.
 Province of Quebec—Fyles.

ALLOGRAPTA.

- OSTEN SACKEN, Bull. Buffalo Soc. Nat. Hist., iii, 49, 1876; Cat., 246, 1878.
 WILLISTON, Synop. N. A. Syrph., 96, 1886.
 CHAGNON, Ét. Prélim. les Syrph., 37, 1901.
- exotica** WIEDEMANN, of Van der Wulp, see *fracta*.
- fracta** OSTEN SACKEN, West. Dipt., 331.—Santa Monica, Cal.
 VAN DER WULP, Tijdschr. v. Ent., xxvi, 2, pl. 1, f. 2 (*exotica* WIED.).—Guadeloupe.

- WILLISTON, Synop. N. A. Syrph., 97, quotes orig. desc.; Biologia, Dipt., III, 20, syn. of Wulp's *crotica*, etc.—Cal.; Guerrero and Durango, Mex. GIGLIO-TOS, Ditt. del Mess., II, 41.—Mexico, several places.
- HUNTER, Canad. Ent., XXVIII, 95, female.—Cal.
- obliqua** SAY, Jour. Acad. Sci. Phil., III, 89 (*Scæva*); Compl. Works, II, 78 (id.).—U. S.
- WIEDEMANN, Auss. Zweifl., II, 136 (*Syrphus exoticus*).—Brazil. [G. T.]
- WILLISTON, Synop. N. A. Syrph., 96.—Conn. to Cal., etc.
- MACQUART, Dipt. Exot., II, 2, 100, pl. XVI, f. 1 (*Syrphus securiferus*); Suppl. 1, 139, note on female (id.).—N. A.; Savannah.
- WALKER, List, III, 594 (*Sphærophoria bacchides*); Dipt. Saund., 235 (*Syrphus dimensus*).—Fla.; U. S.
- SCHINER, Novara, 353, oc. in S. A.
- VAN DER WULP, Tijdschr. v. Ent., X, 44, pl. IV, f. 12 (*Syrphus signatus*).—N. A.
- OSTEN SACKEN, Cat., 126, syn.
- WILLISTON, Synop. N. A. Syrph., 96; Biologia, Dipt., III, 19, bibl., etc.—U. S., common; Mexico, various places (Argentina—Wulp).
- RILEY, Rept. Dept. Agr., 1889, 351, mentions the larvæ as preying on the grain Aphis, *Siphonophora avenæ*.
- GIGLIO-TOS, Ditt. del Mess., II, 40, extended bibl., etc.—Mexico.
- CHAGNON, Ét. Prélim. les Syrph., 37.—St. Jean and Montreal, Quebec. Fla.—Johnson; N. J.—Smith Cat.; Sea Cliff, N. Y.—Banks.

XANTHOGRAMMA.

- SCHINER, Wien. Ent. Monatsch., IV, 215, 1860; Fauna Austr., I, 318, 1862.
- WILLISTON, Synop. N. A. Syrph., 91, def. and table of species, 1886.
- MIK, Wien. Ent. Zeit., 1897, 65.
- HUNTER, Canad. Ent., XXIX, 130, 1897.
- VERRALL, Brit. Flies, VIII, 447, 1901.
- CHAGNON, Ét. Prélim. les Syrph., 74, 1901.
- æqualis** LOEW, Cent., IV, 84 (*Doros*).—Pa.
- WILLISTON, Synop. N. A. Syrph., 95, pl. IV, f. 6.—D. C., N. J.—Smith Cat.
- divisa** WILLISTON, Proc. Amer. Phil. Soc., XX, 311; Synop. N. A. Syrph., 92.—Wash., White Mts., N. H.
- emarginata** SAY, Jour. Acad. Sci. Phil., III, 91 (*Scæva*); Compl. Works, II, 79 (id.).—E. Fla.
- WIEDEMANN, Auss. Zweifl., II, 119 (*Syrphus*).—E. Fla.
- WILLISTON, Synop. N. A. Syrph., 93.—Fla., Pa., N. H.
- N. J.—Smith Cat.
- felix** OSTEN SACKEN, Bull. Buff. Soc. Nat. Sci., III, 67; Cat., 247.—West Point, N. Y.; Pa., Ill.
- WILLISTON, Proc. Amer. Phil. Soc., XX, 311; Synop. N. A. Syrph., 91.—Conn.
- flavipes** LOEW, Cent., IV, 83 (*Doros*).—Pa.
- WILLISTON, Synop. N. A. Syrph., 94.—Conn.
- CHAGNON, Ét. Prélim. les Syrph., 74.—Montreal.
- N. Y.—O. S. Cat.; N. J.—Smith Cat.; Sea Cliff, N. Y.—Banks.
- nabilis** SNOW, Kans. Univ. Quart., III, 238.—N. M.
- insularis** BIGOT, Annales, 1883, 330 (*Doros*).—Cuba.
- WILLISTON, Synop. N. A. Syrph., 299, note; may be a true *Doros*.

MESOGRAMMA.

- LOEW, Cent., vi, 47, 1865; in Centuries, vol. II, p. 290, Loew proposes to change this name to *Mesograptia*, on account of *Mesogramma* having been used in botany; this would not now be a valid change.
- MACQUART, Dipt. Exot., Suppl., v, 93, 1855 (*Toxomerus*).
- WILLISTON, Synop. N. A. Syrph., 98, 1886 (*Mesograptia*); Biologia, Dipt., III, 24, 1891, def. and table of Central American species.
- CHAGNON, Ét. Prélim. les Syrph., 38, 1901.
- anchorata** MACQUART, Dipt. Exot., II, 2, 97, pl. XVI, f. 8 (*Syrphus*).—N. A.
- arcifer** LOEW, Cent., vi, 52 (*Mesograptia*).—Cuba.
Porto Rico—Coquillett; Jamaica—Johnson.
- aurulenta** WILLISTON, Synop. N. A. Syrph., 102 (*Mesograptia*).—San Domingo.
- basilaris** WIEDEMANN, Auss. Zweifl., II, 43 (*Syrphus*).—Brazil.
SCHINER, Novara, 350 (*soror*).—America (doubtless S. A.). [Giglio-Tos.]
VAN DER WULP, Tijdschr. v. Ent., XXVI, 6, pl. I, f. 8 (*Mesograptia*).—Guadeloupe.
- GIGLIO-TOS, Ditt. del Mess., II, 45.—Vera Cruz, Tabasco, etc.
? WILLISTON, Trans. Ent. Soc. Lond., 1896, 349, doubtful oc. in St. Vincent, W. I.
- ? **bicincta** BIGOT, Annales, 1884, 112 (*"Mesograptia?"*).—Mex.
- bidentata** GIGLIO-TOS, Ditt. del Mess., II, 49, pl. II, f. 12.—Orizaba and Tampico, Mex.
WILLISTON, Biologia, Dipt., III, 25 (*"Mesogramma—?"*).—Mexico, several places.
- ? **bistrigata** BIGOT, Annales, 1884, 110 (*"Mesograptia?"*).—Mex.
- boscii** MACQUART, Dipt. Exot., II, 2, 100, pl. XVI, f. 2 (*Syrphus*).—Cardina.
WALKER, Dipt. Saund., 236 (*Syrphus gurgcs*).—U. S. [O. S.]
LOEW, Cent., vi, 47 (*parvula*).—Fla. [Hunter.]
WILLISTON, Synop. N. A. Syrph., 99 and 103 (*parvula* and *boscii*).—Ga.
HUNTER, Canad. Ent., XXVIII, 95.—Mex.
St. Vincent—Will.; N. J.—Smith Cat.; Porto Rico—Roeder; Montreal—Chagnon; Fla.—Johnson.
- ciliata** GIGLIO-TOS, Boll. R. Univ. Torino, VII, No. 132, 1892; Ditt. del Mess., II, 50, pl. II, f. 16.—Tuxpango, Mex.
- ? **circumdata** BIGOT, Annales, 1884, 107 (*"Mesograptia?"*).—Mex.
- coalescens** WALKER, Dipt. Saund., 237 (*Syrphus*).—N. A.
OSTEN SACKEN, Cat., 125, note; gen. ref.
- comma** GIGLIO-TOS, Boll. R. Univ. Torino, VII, No. 132, 1892; Ditt. del Mess., II, 53.—Mex.
- confusa** SCHINER, Novara, 349.—S. A.
BIGOT, Annales, 1884, 113 (*Mesograptia? maculipes*).—Brazil.
GIGLIO-TOS, Ditt. del Mess., II, 51, pl. II, f. 11, syn., etc.—Mex.
- corbis** WALKER, Dipt. Saund., 237 (*Syrphus*).—N. A.
OSTEN SACKEN, Cat., 125, note; gen. ref.
- ? **cuprina** BIGOT, Annales, 1884, 114 (*"Mesograptia?"*).—Cuba.
- diversa** GIGLIO-TOS, Boll. R. Univ. Torino, VII, No. 132, 1892; Ditt. del Mess., II, 48, pl. II, f. 13.—Mex.
- duplicata** WIEDEMANN, Auss. Zweifl., II, 142 (*Syrphus*).—S. A.
MACQUART, Dipt. Exot., II, 2, 91, pl. XV, f. 9 (*Syrphus*).—Uruguay.
RONDANI, Nuovo Ann. Sc. Nat. Bologna, 1850, 5; Ann. del Soc. Nat. Modena, 1868, III, 3 (both *Syrphus*).—S. A.
SCHINER, Novara, 350.—Brazil and Colombia—Wiedemann's types.
THOMSON, Eugen. Resa, 494 (*Syrphus ochrogaster*).—Buenos Ayres.

VAN DER WULP, Tijdschr. v. Ent., xxvi, 4, pl. 1, f. 3.—Argentina.

GIGLIO-TOS, Ditt. del Mess., II, 44, pl. II, f. 9.—Mex.

ectypus SAY, Jour. Acad. Sci. Phil., VI, 165 (*Syrphus*); Compl. Works, II, 359.—Mex. (Osten Sacken gives it Cuba, which is probably an oversight.)

geminata SAY, Jour. Acad. Sci. Phil., III, 92 (*Scæva*); Compl. Works, II, 80 (id.).—U. S.

WIEDEMANN, Auss. Zweifl., II, 145 (*Syrphus*).—Pa.

MACQUART, Dipt. Exot., Suppl. v, 93, pl. v, f. 4 (*Toxomerus notatus*).—Baltimore.

WALKER, Dipt. Saund., 225, 238 (*Eumerus privernus* and *Syrphus interrogans*).—U. S.; N. A.

SCHINER, Novara, 347, note.

WILLISTON, Proc. Amer. Phil. Soc., XX, 310 (*Toxomerus*); Synop. N. A. Syrph., 102, pl. IV, f. 5.—Conn., Cal., Wash.

CHAGNON, Ét. Prélim. les Syrph., 39.—Montreal.

N. J.—Smith Cat.

? *heraldica* BIGOT, Annales, 1884, 109 (*"Mesograpta?"*).—Mex.

? *lachrymosa* BIGOT, Annales, 1884, 108 (*"Mesograpta?"*).—Mex., Brazil.

laciniosa LOEW, Cent., VI, 50.—Cuba.

Porto Rico—Roeder, Coquillett; St. Vincent—Will.

linearis VAN DER WULP, Tijdschr. v. Ent., xxvi, 5 (*Mesograpta*).—Mex.

? *maculata* BIGOT, Annales, 1884, III (*"Mesograpta?"*).—Cuba, Mex., Brazil.

? *marginata* SAY, Jour. Acad. Sci. Phil., II, 92 (*Scæva*); Compl. Works, II, 80 (id.).—U. S.

WIEDEMANN, Auss. Zweifl., II, 146 (*Syrphus*).—Pa.

WALKER, Dipt. Saund., 239 (*Syrphus quintius*).—N. A.

THOMSON, Eugen. Resa, 495 (*Syrphus limbiventris*).—Cal.

LOEW, Cent., VI, 49 (*planiventris*).—Fla.

WILLISTON, Synop. N. A. Syrph., 100, 294 (*Mesograpta*); Biologia, Dipt., III, 25, notes.—U. S., common; Mex.

SNOW, Kans. Univ. Quart., III, 239, note.—Col., N. M.

GIGLIO-TOS, Ditt. del Mess., II, 52.—Mex.

CHAGNON, Ét. Prélim. les Syrph., 40.—Montreal.

N. A., in most local lists; Johnson makes *planiventris* distinct.

minuta WIEDEMANN, Auss. Zweifl., II, 146 (*Syrphus*).—Brazil.

BIGOT, in Sagra's Cuba, 806, oc. in Cuba (id.).

? *mu* BIGOT, Annales, 1884, 105 (*"Mesograpta?"*).—Mex.

multipunctata VAN DER WULP, Tijdschr. v. Ent., xxvi, 6, pl. 1, f. 7.—Guadeloupe.

mutua SAY, Jour. Acad. Sci. Phil., VI, 164 (*Syrphus*); Compl. Works, II, 358 (id.).—Mex.

? WILLISTON, Biologia, Dipt., III, 27, doubtfully ident. from Mex.

GIGLIO-TOS, Ditt. del Mess., II, 43, pl. II, f. 10.—Cuernavaca, Orizaba and Patzcuaro, Mex.

pallipes BIGOT, see *tridentata*.

parvula LOEW, see *boscii*.

picta MACQUART, Dipt. Exot., II, 2, 99 (*Syrphus*).—Guiana.

LOEW, Cent., VI, 51 (*pæcilogaster*).—Cuba.

GIGLIO-TOS, Ditt. del Mess., II, 52.—Mex.

Jamaica—Johnson (*pæcilogaster*).

planiventris LOEW, see *marginata*.

pæcilogaster LOEW, see *picta*.

polita SAY, Jour. Acad. Sci. Phil., III, 68 (*Scæva*) and American Ent., I, pl. XI, f. 3 (*Syrphus*); Compl. Works, II, 77 and I, 24.—U. S.

- WIEDEMANN, AUSS. Zweifl., II, 132 (*Syrphus*).
 MACQUART, Dipt. Exot., Suppl. IV, 155 (*Syrphus cingulatus*).—Pensacola, Fla.
 JÆNNICKE, Neue Exot. Dipt., 90 (*Syrphus hecticus*).—Ill.
 OSTEN SACKEN, Cat., 125, syn. of Macquart and Jænnicke.
 WILLISTON, Synop. N. A. Dipt., 98 (*Mesograptus*); Biologia, Dipt., III, 25, bibl., etc.—N. C., Kans., Conn., Ga.; Guerrero and Tabasco, Mex.
 RILEY and HOWARD, Ins. Life, I, 5-8, figs., habits; larvæ feed on pollen and tissues of corn; II, 115, note on damage.—Mo.
 SNOW, Kans. Univ. Quart., III, 239, note.—N. M.
 GIGLIO-TOS, Ditt. del Mess., II, 42, bibl., etc.—Mex.
 CHAGNON, Ét. Prélim. les Syrph., 38.—St. Jean, Quebec.
 St. Augustine, Fla.—Johnson; N. J.—Smith Cat.; Montreal—Chagnon.
pulchella MACQUART, Dipt. Exot., Suppl. I, 138, pl. XI, f. 12 (*Syrphus*).—San Domingo.
 VAN DER WULP, Tijdschr. v. Ent., XXVI, 4, pl. I, f. 4 (*Mesograptus*).—Guadeloupe.
quinquecincta BIGOT, Annales, 1888, 254 (*Mesograptus*).—Mex.
quinquemaculata BIGOT, Annales, 1888, 254 (*Mesograptus*).—Mex.
rhombica GIGLIO-TOS, Boll. R. Univ. Torino, VII, No. 132, 1892; Ditt. del Mess., II, 46, pl. II, f. 13.—Orizaba, Mex.
sapphiridiceps BIGOT, Annales, 1884, 105 (*"Mesograptus?"*).—Mex.
 WILLISTON, Biologia, Dipt., III, 24.—Guerrero, Mex.
subannulata LOEW, Cent., VI, 48.—Cuba.
 GIGLIO-TOS, Ditt. del Mess., II, 47, pl. II, f. 14.—Mex.
 COQUILLET, Proc. U. S. N. M., XXII, 253, oc. in Porto Rico.
 Jamaica—Johnson.
tridentata RONDANI, Ann. Soc. Nat. Modena, III, 1868, 1 (*Syrphus*).—Patagonia.
 BIGOT, Annales, 1884, 106 (*Mesograptus? pallipes*).—Mex. [G. T.]
 WILLISTON, Biologia, Dipt., III, 27 (*pallipes*).—Guerrero, Tabasco, Mex.
 GIGLIO-TOS, Ditt. del Mess., II, 48, pl. II, f. 17.—Tuxpango, Mex.
? trilobata BIGOT, Annales, 1884, 109 (*"Mesograptus?"*).—Mex.
variabilis VAN DER WULP, Tijdschr. v. Ent., XXVI, 6, pl. I, f. 9 (*Mesograptus*).—Guadeloupe.

SPHÆROPHORIA.

- ST. FARGEAU et SERVILLE, Encycl. Méth., X, 513, 1825.
 MACQUART, Dipt. du Nord de la France, 1827, 216; Hist. Nat. Dipt., 551, 1834.
 LOEW, Oken's Isis, 1840, 573 (*Melithreptus*).
 WALKER, Ins. Brit. Dipt., III, xxi (*Melitrophus*), 1856.
 SCHINER, Fauna Austr., I, 315 (*Melithreptus*), 1862.
 WILLISTON, Synop. N. A. Syrph., 104, def. and table of species, 1886; Biologia, Dipt., III, 20, notes and table of species, 1891.
 VERRALL, Brit. Flies, VIII, 426, 1901.
 CHAGNON, Ét. Prélim. les Syrph., 40, 1901.
bacchides WALKER, see *Allograptus obliqua*.
[calceolatus] MACQUART. For the possible occurrence of this in Mexico, see GIGLIO-TOS, Ditt. del Mess., II, 33.]
cylindrica SAY, Amer. Entomology, I, pl. XI; Compl. Works, I, 22 (both *Syrphus*).—Pa.
 WIEDEMANN, AUSS. Zweifl., II, 138 (id.).
 MACQUART, Dipt. Exot., Suppl. II, 62 (*contigua*).—Philadelphia. [O. S.]

- WILLISTON, Synop. N. A. Syrph., 105, pl. iv, f. 16.—New Eng., Wash. Col., N. M.
- RILEY, Rept. Dept. Agr., 1889, 351, mentions the larvæ feeding on grain *Aphis*, *Siphonophora avenæ*.
- CHAGNON, Ét. Prélim. les Syrph., 41.—Quebec, common.
- N. A., in nearly all local lists.
- dubia** BIGOT, Annales, 1884, 101.—Cal.
- WILLISTON, Synop. N. A. Syrph., 108, quotes orig. desc.
- forreri** GIGLIO-TOS, Ditt. del Mess., II, 32.—Solco and Cuernavaca, Mex.
- WILLISTON, Biologia, Dipt., III, 23 ("*Spharophoria*?").—Durango, Mex.
- fulvicauda** BIGOT, Annales, 1884, 104.—Mex.
- hieroglyphica** MEIGEN, Syst. Besch., III, 327 (*Syrphus*).—Europe.
- WALKER, List, III, 593, oc. in Nova Scotia.
- infumata** THOMSON, Eugen. Resa, 501.—Cal.
- WILLISTON, Synop. N. A. Syrph., 109, quotes orig. desc.
- melanosa** WILLISTON, Synop. N. A. Syrph., 106.—Cal.
- Hudsonian Zone, N. M.—Cockerell.
- menthastri** LINNÉ, Fauna Suec., 2d ed., no. 1819 (*Musca*).—Europe.
- WALKER, List, III, 593, oc. in Canada and New York.
- micrura** OSTEN SACKEN, West. Dipt., 330.—Sonoma Co., etc., Cal.
- WILLISTON, Synop. N. A. Syrph., 107; Biologia, Dipt., III, 21, notes.—Cal.; Guerrero, Mex.
- GIGLIO-TOS, Ditt. del Mess., II, 33.—Orizaba.
- nasuta** BIGOT, Annales, 1884, 103, see *Baccha*.
- nasuta** BIGOT, Annales, 1888, 253.—Mex.
- pachypyga** BIGOT, Annales, 1884, 104.—Mex.
- picta** MEIGEN, of Holmgren, Ins. Nordgræn., 100, see *scripta*.
- picticauda** BIGOT, Annales, 1884, 102.—Mex.
- WILLISTON, Biologia, Dipt., III, 21.—Guerrero and Tabasco, Mex.
- GIGLIO-TOS, Ditt. del Mess., II, 34, notes.—Mexico, several places.
- pyrrhina** BIGOT, Annales, 1884, 101.—Cal.
- WILLISTON, Synop. N. A. Syrph., 108, quotes orig. desc.
- rostrata** BIGOT, Annales, 1884, 102.—Mex.
- scripta** LINNÉ, Syst. Nat., 10th ed., 594 (*Musca*); Fauna Suec., 2d ed., 449 (id.).—Europe.
- SCOPOLI, Ent. Carn., 965 (*Conops gemmatus*).
- FABRICIUS, Syst. Ent., 772 (*Syrphus*); Spec. Ins., II, 434 (id.); Ent. Syst., IV, 308 (id.); Syst. Antl., 252 (*Scava*).
- FALLÉN, Syrphici, 48 (*Scava*).
- MEIGEN, Syst. Besch., III, 324 (*Syrphus*).
- MACQUART, Dipt. du Nord de la France, 1827, 218; Hist. Nat. Dipt., I, 551.
- ZETTERSTEDT, Ins. Lapp., 605; Dipt. Scand., II, 766 and VIII, 3157 (all *Scava*).
- WALKER, List, III, 592, oc. in Nova Scotia.
- SCHINER, Verh. Zool.-Bot. Ges., VII, 369 (*Melithreptus*); Fauna Austr., I, 316 (id.).
- RONDANI, Dipt. Ital. Prod., II, 112.
- VAN DER WULP, Tijdschr. v. Ent., XXVI, 8, oc. at Quebec (*Melithreptus*).
- KOWARZ, Wien. Ent. Zeit., IV, 133, varieties, etc.
- WILLISTON, Synop. N. A. Syrph., 107, transl. Schiner; not seen.
- VERRALL, Brit. Flies, VIII, 432.
- var. **strigata** STÆGER, Græn. Antl., 362.—Greenland.

HOLMGREN, Ins. Nordgrœnl., 100 (*strigata* and *picta* MEIG.).—Greenland.
[Lundbeck.]

LUNDBECK, Dipt. Grœnl., 1, 304, oc. in Greenland.

sulphuripes THOMSON, Eugen. Resa, 501 (*Syrphus*).—Cal.

OSTEN SACKEN, West. Dipt., 330.—San Rafael and Yosemite, Cal.

WILLISTON, Synop. N. A. Syrph., 106.—Cal.

Alaska—Coquillett; Hudsonian Zone, N. M.—Cockerell.

trilimbata BIGOT, Annales, 1888, 254.—Mex.

willistonii GIGLIO-TOS, Ditt. del Mess., II, 31, pl. III, f. 6.—Orizaba, Mex.

WILLISTON, Biologia, Dipt., III, 22 ("*Spharophoria*—?").—Mex.

PELECOCERA.

MEIGEN, Syst. Besch., III, 340, 1822.

SCHINER, Fauna Austr., I, 314, 1862.

WILLISTON, Wien. Ent. Zeit., III, 185, 1884 (*Euccratomyia* BIGOT); Synop.
N. A. Syrph., 110, 1886.

MIK, Wien. Ent. Zeit., XIV, 133, 1895.

KERTÉSZ, Wien. Ent. Zeit., XVI, 149, 1897.

SNOW, Kans. Univ. Quart., III, 187, notes, 1895.

VERRALL, Brit. Flies, VIII, 459, 1901.

pergandei WILLISTON, Wien. Ent. Zeit., III, 186, fig. (*Euccratomyia*); Bull.
Brooklyn Ent. Soc., VII, 139; Synop. N. A. Syrph., 110, pl. IV, f. 13.—
D. C.

BIGOT, Wien. Ent. Zeit., III, 217, refers to *Merapioides*.

willistonii SNOW, see *Chamasyrphus*.

CHAMÆSYRPHUS.

MIK, Wien. Ent. Zeit., XIV, 133, 1895.

willistonii SNOW, Kans. Univ. Quart., III, 187 (*Pelcoccera*).—N. M.

MIK, loc. cit., gen. ref.

Beulah, N. M.—Skinner.

SPHEGINA.

MEIGEN, Syst. Besch., III, 193, 1822.

SCHINER, Fauna Austr., I, 322, 1862.

WILLISTON, Synop. N. A. Syrph., 113, def. and table of species, 1886.

VERRALL, Brit. Flies, VIII, 463, 1901.

CHAGNON, Ét. Prélim. les Syrph., 43, 1901.

campanulata ROBERTSON, Canad. Ent., XXXIII, 284.—Carlinville, Ill.

infuscata LOEW, Cent., III, 23.—Sitka.

WILLISTON, Synop. N. A. Syrph., 114, pl. IV, f. 12.—Ore.

COQUILLET, Proc. Wash. Acad. Sci., II, 434, note on male, and dist.—
Alaska, Col. and N. H.

keeniana WILLISTON, Synop. N. A. Syrph., 113, pl. IV, f. 11.—Philadelphia.

N. J.—Smith Cat.; White Mts., N. H.—Slosson.

lobata LOEW, Cent., III, 21.—Middle States.

WILLISTON, Synop. N. A. Syrph., 115.—White Mts., N. H.; Ore.

N. J.—Smith Cat.; Sea Cliff, L. I.—Banks; White Mts., N. H.—Slosson.

rufiventris LOEW, Cent., III, 22.—N. Y.

WILLISTON, Synop. N. A. Syrph., 114.—Wash.

CHAGNON, Ét. Prélim. les Syrph., 43.—Montreal.

N. J.—Smith Cat.; Quebec—Wulp and Fyles.

NEOASCIA.

WILLISTON, Synop. N. A. Syrph., III, def. and change of name, 1886.

MEIGEN, Syst. Besch., III, 185, 1822 (*Ascia*, preoc.).

SCHINER, Fauna Austr., I, 320 (id.), 1862.

VERRALL, Brit. Flies, VIII, 467, 1901, does not admit preoc. of *Ascia*, and retains it.

CHAGNON, Ét. Prélim. les Syrph., 44, 1901.

distincta WILLISTON, Synop. N. A. Syrph., 112.—Mass.

globosa WALKER, List, III, 546 (*Ascia*).—Trenton Falls, N. Y.

WILLISTON, Proc. Amer. Phil. Soc., XX, 315 (*metallica*); Synop. N. A. Syrph., III, pl. IV, f. 10.—New Eng., Ore.

BIGOT, Annales, 1883, 327, 328 (*Ascia nasuta*, *quadrinotata*, and *albipes*).
—Mt. Hood, Ore.; Mt. Hood, Ore.; N. A. [Will.]

COQUILLET, Proc. Wash. Acad. Sci., II, 433, oc. in Alaska.

CHAGNON, Ét. Prélim. les Syrph., 44.—Sherbrooke, Quebec.

N. J.—Smith Cat.; Montreal—Chagnon; Sea Cliff, N. Y.—Banks.

Williston recognizes *albipes* and *metallica* as varieties.

RHINGIA.

SCOPOLI, Ent. Carniol., 358, 1763.

MEIGEN, Syst. Besch., III, 257, 1822.

SCHINER, Fauna Austr., III, 325, 1862.

WILLISTON, Synop. N. A. Syrph., 129, 1886.

VERRALL, Brit. Flies, VIII, 477, 1901.

CHAGNON, Ét. Prélim. les Syrph., 45, 1901.

nasica SAY, Jour. Acad. Sci. Phil., III, 94; Compl. Works, II, 81.—U. S.

WIEDEMANN, Auss. Zweifl., II, 115.

WILLISTON, Synop. N. A. Syrph., 130, pl. V, f. 3.—New Eng., Ind., Ky.

CHAGNON, Ét. Prélim. les Syrph., 45.—Montreal.

N. J.—Smith Cat.; White Mts., N. H.—Slosson; Sea Cliff, N. Y.—Banks;
Province of Quebec—Fyles.

nigra MACQUART, Dipt. Exot., Suppl. I, 133, pl. XI, f. 10.—Colombia.

WILLISTON, Biologia, Dipt., III, 40, oc.—Tabasco, Mex.

HAMMERSCHMIDTIA.

SCHUMMEL, in Oken's Isis, 1834, 740; reprinted by Roeder, 1888.

RONDANI, Dipt. Ital. Prod., II, 170 (*Exocheila*), 1857.

WILLISTON, Canad. Ent., XIV, 80, 1882 (*Eugeniomyia*); Proc. Amer. Phil. Soc., XX, 309, 1882 (id.); Synop. N. A. Syrph., 130, 1886 (id.).

VERRALL, Brit. Flies, VIII, 475, 1901, notes; scarcely distinct from *Brachyopa*.

ferruginea FALLÉN, Syrphici, 34 (*Rhingia*).—Europe.

MEIGEN, Syst. Besch., III, 263 (*Brachyopa*).

ZETTERSTEDT, Ins. Lapp., 596; Dipt. Scand., II, 686 and VIII, 3125 (all *Brachyopa*).

SCHINER, Verh. Zool.-Bot. Ges., VII, 376; Fauna Austr., I, 326 (id.).

LOEW, in Osten Sacken's Cat., 128, oc. in N. A.—Saskatchewan R.

WILLISTON, Canad. Ent., XIV, 80 (*Eugeniomyia rufa*); Synop. N. A. Syrph., 131 (*Eugeniomyia*).—Wash.

BRACHYOPA.

MEIGEN, Syst. Besch., III, 260, 1822.

SCHINER, Fauna Austr., I, 326, 1862.

WILLISTON, Synop. N. A. Syrph., 131, def. and table of species, 1886.

VERRALL, Brit. Flies, VIII, 474, 1901.

CHAGNON, Ét. Prélim. les Syrph., 45, 1901.

cynops SNOW, Kans. Univ. Quart., I, 37, pl. VII, f. 2.—Col.

ferruginea FALLÉN, see *Hammerschmidtia*.

media WILLISTON, Proc. Amer. Phil. Soc., XX, 308; Synop. N. A. Syrph., 132, pl. v, f. 7.—Cal.

CHAGNON, Ét. Prélim. les Syrph., 46.—St. Hilaire, Quebec.

notata OSTEN SACKEN, Bull. Buff. Soc. Nat. Sci., III, 68; Cat., 248, reprinted.—White Mts., N. H.

WILLISTON, Synop. N. A. Syrph., 132, pl. v, f. 5, 6.—Ore., Wash.

COQUILLETT, Proc. Wash. Acad. Sci., II, 434, oc. in Alaska.

CHAGNON, Ét. Prélim. les Syrph., 46.—Rigaud, Quebec.

White Mts., N. H.—Slosson; Montreal—Chagnon.

vacua OSTEN SACKEN, Bull. Buff. Soc. Nat. Sci., III, 68 (*racua*, a typographical error); Cat., 247, reprinted.—Quebec, Canada.

BIGOT, Annales, 1884, 537 (*cincrovitta*).—Cal. [Will.]

WILLISTON, Synop. N. A. Syrph., 133.—Kern Co., Cal.

CHAGNON, Ét. Prélim. les Syrph., 46.

JOHNSON, Ent. News, Sept., 1899, 220, oc. at Darby, Pa.

COPESTYLUM.

MACQUART, Dipt. Exot., Suppl. I, 124, 1846.

WILLISTON, Synop. N. A. Dipt., 161, 1886.

limbipennis WILLISTON, Synop. N. A. Syrph., 152; Biologia, Dipt., III, 56 (*limbipenne*), female desc.—Mex.; Acapulco and Tehuantepec, Mex.

marginatum SAY, Jour. Acad. Sci. Phil., VI, 167; Compl. Works, II, 360 (*Volucella*).—Mex.

MACQUART, Dipt. Exot., Suppl. I, 125, pl. x, f. 16 (*flaviventris*).—Venezuela.

WILLISTON, Synop. N. A. Syrph., 151, pl. VII, f. 1; Biologia, Dipt., III, 56, oc. and notes; Ent. News, II, 162, larval habits.—Tex., Ariz., Mont., Cal.; Guerrero and N. Sonora, Mex.; the larvæ feed in the tissues of the common cactus of the plains, *Opuntia missouriensis*.

TOWNSEND, Psyche, 1898, 267, note.—N. M.

GIGLIO-TOS, Ditt. del Mess., II, 40, pl. I, f. 14, 15 (*marginatum* and *distinctum*).—Mexico.

Note.—Giglio-Tos believes that both Say and Macquart confused two species as males and females of the same species.

var. **lentum** WILLISTON, Synop. N. A. Syrph., 152.

parvum GIGLIO-TOS, Boll. R. Univ. Torino, VII, No. 123, 1892; Ditt. del Mess., I, 42.—Tehuacan, Mex.

simile GIGLIO-TOS, Boll. R. Univ. Torino, VII, No. 123, 1892; Ditt. del Mess., I, 42.—Tehuacan and Meztilan, Mex.

VOLUCELLA.

GEOFFROY, Hist. Ins. Env. de Paris, II, 540, 1764.

ST. FARGEAU et SERVILE, Encycl. Méth., X, 786, 1825 (*Temnocera* and *Ornidia*).

MACQUART, Dipt. Exot., II, 2, 26 (*Temnocera*), 1842.

SCHINER, Fauna Austr., I, 328, 1862.

BIGOT, Bull. Soc. Ent. France, 1882, No. 12 (*Atemnocera*); Annales, 1883, 64, table of species.

- WILLISTON, Synop. N. A. Syrph., 134, def. and table of species, 1886; Biologia, Dipt., III, 43, table of Cent. Amer. species, 1891.
- GIGLIO-TOS, Boll. R. Univ. Torino, VI, No. 117, 1892 (*Camcrania*); Ditt. del Mess., 1, 45, 1892 (id.).
- TOWNSEND, Annals and Mag. Nat. Hist., XX, 26, table of species of *amethystina* group.
- VERRALL, Brit. Flies, VIII, 482, 1901.
- CHAGNON, Ét. Prélim. les Syrph., 47, 1901.
- abdominalis** WIEDEMANN, Auss. Zweifl., II, 196.—Cuba.
- MACQUART, Dipt. Exot., II, 2, 25.—Cuba.
- COCKERELL, Jour. Inst. Jamaica, 1, 259 ("*spiniger*, Brit. Mus."). [Twins.]
- TOWNSEND, Trans. Amer. Ent. Soc., XXII, 39.—Jamaica.
- amethystina** BIGOT, Annales, 1875, 479.—Mex.
- WILLISTON, Biologia, Dipt., III, 52, brief desc.—Presidio, Mex.
- anna** WILLISTON, Synop. N. A. Syrph., 138, pl. VI, f. 8.—Ariz., N. M.
- TOWNSEND, Trans. Amer. Ent. Soc., XXII, 40, female; Annals and Mag. Nat. Hist., XIX, 141, oc.—N. M.; Rio Ruidosa, N. M.
- aperta** WALKER, Trans. Ent. Soc., n. ser., V, 292.—Mex.
- apicalis** LOEW, Cent., VI, 36.—Cuba.
- WILLISTON, Synop. N. A. Syrph., 149, transl. orig. desc.
- apicifera** TOWNSEND, pub. by SNOW, in Kans. Univ. Quart., III, 241; Townsend, Trans. Amer. Ent. Soc., XXII, 40.—Las Cruces, N. M.
- HUNTER, Canad. Ent., XXIX, 131, oc. and note.—N. M.
- ardua** WIEDEMANN, Auss. Zweifl., II, 204.—Surinam.
- RONDANI, Es. Ins. Ditt. Brasil, 1848.—Brazil.
- GIGLIO-TOS, Ditt. del Mess., 1, 56.—Orizaba, Mex.
- avida** OSTEN SACKEN, West. Dipt., 333.—Cal.
- WILLISTON, Synop. N. A. Syrph., 139, pl. VI, f. 12; Biologia, Dipt., III, 47.—Cal.; Guanajuato, Mex.
- HUBBARD, Psyche, May, 1899, suppl. 1, 1, larvæ in giant cactus, *Cercus giganteus*, in Ariz.
- bombylans** LINNÉ, see *cæcta*.
- brevis** GIGLIO-TOS, Boll. R. Univ. Torino, VII, No. 123, 1892; Ditt. del Mess., 1, 63.—Meztillan, Mex.
- cæsariata** WILLISTON, Biologia, Dipt., III, 49.—Orizaba, Mex.
- GIGLIO-TOS, Boll. R. Univ. Torino, VII, No. 123, 1892 (*hirsuta*); Ditt. del Mess., 1, 60.—Meztillan, Mex.
- castanea** BIGOT, Annales, 1875, 476.—Mex.
- WILLISTON, Biologia, Dipt., III, 45, oc.—Jalisco, Mex.
- TOWNSEND, Trans. Amer. Ent. Soc., XXII, 41.—Guanajuato, Mex.
- See also under *postica*.
- chætophora** WILLISTON, Synop. N. A. Syrph., 149; Biologia, Dipt., III, 52, pl. 1, f. 15.—Mex.; Guerrero, Isthmus of Tehuantepec, and N. Yucatan, Mex.
- ? TOWNSEND, Annals and Mag. Nat. Hist., XX, 26, notes; identity seems doubtful.—Vera Cruz.
- chalybescens** WIEDEMANN, Auss. Zweifl., II, 204.—Brazil.
- JÄNNICKE, Neue Exot. Dipt., 4.—Cuba.
- GIGLIO-TOS, Ditt. del Mess., 1, 52.—Orizaba, Mex.
- comastes** WILLISTON, Biologia, Dipt., III, 52.—Orizaba, Mex.
- See note to *variegata*.
- comstocki** WILLISTON, Synop. N. A. Syrph., 138, pl. VI, f. 9; Biologia, Dipt., III, 51, oc.—Ariz., N. M.; N. Sonora, Mex.

- TOWNSEND, Trans. Amer. Ent. Soc., XXII, 41; Psyche, 1897, 148, notes; Annals and Mag. Nat. Hist., XIX, 141, notes.—N. M.
- cordiæ** TOWNSEND, Annals and Mag. Nat. Hist., XX, 27.—Vera Cruz, Mex.
- craverii** GIGLIO-TOS, Boll. R. Univ. Torino, VII, No. 123, 1892; Ditt. del Mess., I, 49.—Mex.
- dichroica** GIGLIO-TOS, Boll. R. Univ. Torino, VII, No. 123, 1892; Ditt. del Mess., I, 55.—Huastec, Mex.
- estebana** TOWNSEND, Proc. Cal. Acad. Sci., IV, 612.—Lower Cal.
- esuriens** FABRICIUS, Syst. Ent., IV, 281 (*Syrphus*); Syst. Antl., 226 (id.).—W. I. SAY, Jour. Acad. Sci. Phil., VI, 166 (*violacca*); Compl. Works, II, 360 (id.).—Mex.
- WIEDEMANN, Auss. Zweifl., II, 197.
- MACQUART, Dipt. Exot., II, 2, 25, pl. v, f. 3 (*mexicana*); Suppl. I, 123, pl. XI, f. 2 (*dispar*).—Mex.; New Grenada.
- WALKER, List, III, 636 (*metallifera*).—Venezuela and Mex. [Will.]
- JENNICKE, Neue Exot. Dipt., 87 (*maximiliani*).—Mex.
- SCHINER, Novara, 356 (*esuriens* and *mexicana*), syn., etc.—S. A.
- OSTEN SACKEN, West. Dipt., III (*mexicana*); Cat., 128, syn.—S. Cal.
- RONDANI, Archiv. per Zool., III, 4, 1865 (*transatlantica*).—S. A.
- WILLISTON, Synop. N. A. Syrph., 137, pl. VI, f. 5; Biologia, Dipt., III, 50, bibl., etc.—Cal., Ariz., Tex., Fla.; Mexico, several places.
- GIGLIO-TOS, Ditt. del Mess., I, 47, full bibl.—Mexico, common.
- TOWNSEND, Trans. Amer. Ent. Soc., XXII, 41, notes; Proc. Cal. Acad. Sci., IV, 613, notes; Jour. N. Y. Ent. Soc., V, 174, notes.—N. M.; Lower Cal.; Tex.
- Porto Rico—Roeder.
- eugenia** WILLISTON, Synop. N. A. Syrph., 139, pl. VI, f. 10.—Bahamas, Fla., Jamaica.
- ✓ **evecta** WALKER, Dipt. Saund., 251.—U. S.
- MACQUART, Dipt. Exot., Suppl. IV, 131 (*plumata* FABR.), note.—Newfoundland.
- WILLISTON, Proc. Amer. Phil. Soc., XX, 316 (*facialis*); Synop. N. A. Syrph., 136, 137, pl. VI, f. 6 (*evecta*, *facialis*, and var. *sanguinea*).—New England, Middle States, Brit. Possessions, Cal.
- COQUILLETT, Proc. Wash. Acad. Sci., II, 434, oc. in Alaska (*facialis*).
- TOWNSEND, Trans. Amer. Ent. Soc., XXII, 42, notes on varieties, recognizing *facialis* and *sanguinea* as such.
- CHAGNON, Ét. Prélim. les Syrph., 47.—Montreal and St. Jean, Quebec.
- AXTON, N. Y.—M. and H.; N. J.—Smith Cat.; Sea Cliff, N. Y.—Banks; White Mts., N. H.—Slosson.
- fasciata** MACQUART, Dipt. Exot., II, 2, 22, pl. v, f. 2.—Carolina.
- OSTEN SACKEN, West. Dipt., 334, oc.—Texas and Manitou, Col.
- WILLISTON, Synop. N. A. Syrph., 145, pl. VI, f. 4; Biologia, Dipt., III, 48, note; Ent. News, II, 162, larvæ.—Kans., Col., Tex., Mexico, Carolina; Mex.; larvæ feed in the tissues of the common cactus of the plains, *Opuntia missouriensis*.
- SMITH, Canad. Ent., XXIII, 242, larvæ in prickly pear cactus.
- Inverness, Fla.—Johnson; N. J.—Smith Cat.
- fax** TOWNSEND, Trans. Amer. Ent. Soc., XXII, 42.—Col.
- flavissima** GIGLIO-TOS, Boll. R. Univ. Torino, VII, No. 123, 1892; Ditt. del Mess., I, 50.—Orizaba, Mex.
- fornax** TOWNSEND, Proc. Cal. Acad. Sci., IV, 613.—Lower Cal.

fraudulenta WILLISTON, *Biologia*, Dipt., III, 48, pl. I, f. 13.—Guerrero and N. Yucatan, Mex.

GIGLIO-TOS, *Ditt. del Mess.*, I, 59.—Meztillan, Mex.

fulvicornis BIGOT, *Annales*, 1883, 84.—Panama.

furens GIGLIO-TOS, *Boll. R. Univ. Torino*, VII, No. 123, 1892; *Ditt. del Mess.*, I, 48.—Mex.

fuscipennis MACQUART, *Dipt. Exot.*, II, 2, 24, pl. IV, f. 2.—Brazil.

WILLISTON, *Trans. Amer. Ent. Soc.*, XV, 276; *Biologia*, Dipt., III, 54.—Brazil; Tabasco and N. Yucatan, Mex.

haagi JÄNNICKE, *Neue Exot. Dipt.*, 397.—Mex.

OSTEN SACKEN, *West. Dipt.*, 334 (*Temnoccra setigera*).—Vermejo R., N. M. [Will.]

VAN DER WULP, *Tijdschr. v. Ent.*, XXV, 126, pl. x, f. 10 (id.).—Ariz.

WILLISTON, *Synop. N. A. Syrph.*, 147, pl. v, f. 8; *Biologia*, Dipt., III, 51, oc.—Ariz.; Guerrero, N. Sonora and Guanajuato, Mex.

TOWNSEND, *Proc. Cal. Acad. Sci.*, IV, 614; *Trans. Amer. Ent. Soc.*, XXII, 43, oc.; XXXVIII, 161, notes.—Lower Cal.; Jamaica; N. M.

GIGLIO-TOS, *Ditt. del Mess.*, I, 50, notes.—Mex.

hirsuta GIGLIO-TOS, see *casariata*.

hispida GIGLIO-TOS, see *ornata*.

hyaloptera GIGLIO-TOS, *Boll. R. Univ. Torino*, VII, No. 123, 1892; *Ditt. del Mess.*, I, 57.—Tampico, Mex.

hystrix GIGLIO-TOS, *Boll. R. Univ. Torino*, VII, No. 123, 1892; *Ditt. del Mess.*, I, 62.—Tuxpango, Mex.

inops TOWNSEND, *Trans. Amer. Ent. Soc.*, XXII, 43.—Ft. Collins, Col.

isabellina WILLISTON, *Synop. N. A. Syrph.*, 140; *Biologia*, Dipt., III, 46, oc.—Ariz., N. M.; Mex., N. Sonora.

TOWNSEND, *Proc. Cal. Acad. Sci.*, IV, 614, male.—Ariz.

kincaidii COQUILLET, see *Pyritis*.

lata WIEDEMANN, *Auss. Zweifl.*, II, 195.—Mex.

GIGLIO-TOS, *Ditt. del Mess.*, I, 46.—Oaxaca and Meztillan, Mex.

For Williston's *lata* WIED., see *macrocephala*.

lucasana TOWNSEND, *Proc. Cal. Acad. Sci.*, IV, 615.—Lower Cal.

lugens WIEDEMANN, *Auss. Zweifl.*, II, 206.—Brazil.

WILLISTON, *Biologia*, Dipt., III, 54, doubtfully identified from Guatemala.

macrocephala GIGLIO-TOS, *Ditt. del Mess.*, I, 45 (*Camcrania*).—Yucatan and Vera Cruz, Mex.

WILLISTON, *Synop. N. A. Dipt.*, 146 (*megaccephala* LOEW); *Biologia*, Dipt., III, 45 (*lata* WIED.).—Ariz., Mex.; N. Yucatan and Vera Cruz, Mex. [G. T.]

macula WIEDEMANN, *Auss. Zweifl.*, II, 200.—Brazil.

MACQUART, *Dipt. Exot.*, II, 2, 24, pl. IV, f. 1.—Brazil.

WILLISTON, *Trans. Amer. Ent. Soc.*, XV, 272; *Biologia*, Dipt., III, 51, oc.—Brazil; Mex.

megacephala LOEW, *Cent.*, IV, 57 (*Temnoccra*).—Cal.

TOWNSEND, *Proc. Cal. Acad. Sci.*, IV, 615.—Lower Cal.

For Williston's *megacephala* LOEW, see *macrocephala*.

mellea JÄNNICKE, *Neue Exot. Dipt.*, 396.—Guanajuato, Mex.

WILLISTON, *Biologia*, Dipt., III, 49, oc.—Mexico City.

TOWNSEND, *Trans. Amer. Ent. Soc.*, XXII, 44, notes.—Mex.

GIGLIO-TOS, *Ditt. del Mess.*, I, 58.—Angang, Mess.

minima GIGLIO-TOS, *Boll. R. Univ. Torino*, VII, No. 123, 1892; *Ditt. del Mess.*, I, 53.—Orizaba, Mex.



- nautilana* TOWNSEND, Annals and Mag. Nat. Hist., xx, 28.—Vera Cruz.
- nigrifacies* BIGOT, Annales, 1875, 479.—Mex.
- obesa* FABRICIUS, Syst. Ent., 763 (*Syrphus*); Ent. Syst., iv, 282 (id.); Syst. Antl., 227 (id.).—W. I.
- St. FARGEAU et SERVILE, Encycl. Méth., x, 786 (*Ornidia*).—S. A.
- WIEDEMANN, Auss. Zweifl., II, 199.
- MACQUART, Hist. Nat. Dipt., I, 494.—Asia and S. A.
- SCHINER, Novara, 356, note.—S. A.
- WILLISTON, Synop. N. A. Syrph., 143, pl. v, f. 9; Trans. Amer. Ent. Soc., xv, 272; Biologia, Dipt., III, 50, notes.—San Domingo, Mex., N. M.; Brazil; Mex.
- TOWNSEND, Trans. Amer. Ent. Soc., xxii, 43, notes.—Jamaica.
- GIGLIO-TOS, Ditt. del Mess., I, 64, full. bibliog., etc.; Annales Soc. Ent. de France, 1895, 360, note.—Mexico, Madagascar, E. Indies, etc.; Isle de Séchelles.
- St. Vincent—Williston; Porto Rico—Roeder; Jamaica—Johnson.
- obesoides* GIGLIO-TOS, Boll. R. Univ. Torino, vii, No. 123, 1892; Ditt. del Mess., I, 65.—Mex.
- omochroma* GIGLIO-TOS, Boll. R. Univ. Torino, vii, No. 123, 1892; Ditt. del Mess., I, 47.—Mex.
- opalescens* TOWNSEND, Trans. Amer. Ent. Soc., xxvii, 160.—Organ Mts., N. M.
- opalina* TOWNSEND, Annals and Mag. Nat. Hist., xx, 29.—Vera Cruz.
- var. *splendens* TOWNSEND, loc. cit.
- opinator* WILLISTON, Biologia, Dipt., III, 51, pl. I, f. 14.—Vera Cruz, Mex.
- ornata* WILLISTON, Biologia, Dipt., III, 49.—Jalapa, Mex.
- GIGLIO-TOS, Boll. R. Univ. Torino, vii, No. 123, 1892 (*hispidata*); Ditt. del Mess., I, 61.—Jalapa and Orizaba, Mex.
- pallens* WIEDEMANN, Auss. Zweifl., II, 204.—Brazil.
- LOEW, Wien. Ent. Monatsch., v, 38 (*sempunctata*); Cent., vi, 37 (id.).—Cuba.
- WILLISTON, Trans. Amer. Ent. Soc., xv, 275; Synop. N. A. Syrph., 141, pl. vi, f. 2 (*sempunctata* Lw.); Biologia, Dipt., III, 53, syn. and oc.; Ent. News, III, 146, syn.—Brazil; Fla.; Guatemala.
- GIGLIO-TOS, Ditt. del Mess., I, 57.—Playa Vicente and Mezquillan, Mex.
- TOWNSEND, Trans. Amer. Ent. Soc., xxii, 45, oc. in Jamaica.
- Fla. and Jamaica—Johnson; Porto Rico—Roeder.
- picta* WIEDEMANN, Auss. Zweifl., II, 201.—Brazil.
- BIGOT, in Sagra's Cuba, 802, oc. in Cuba.
- SCHINER, Novara, 358.—Brazil.
- RONDANI, Studi Ent., 65.—Brazil.
- BIGOT, Annales, 1875, 480 (*pulchripes*).—Mex.
- WILLISTON, Trans. Amer. Ent. Soc., xv, 275; Biologia, Dipt., III, 47, syn., etc.—Brazil; Mexico, several places.
- postica* SAY, Jour. Acad. Sci. Phil., vi, 166; Compl. Works, II, 360.—Mex.
- GIGLIO-TOS, Ditt. del Mess., I, 49, desc.; would make *castanea* Big., a synonym.—Tehuacan, Mex.
- pubescens* LOEW, Wien. Ent. Monatsch., v, 38 (*Temnocera*); Cent., vi, 35 (id.).—Cuba.
- WILLISTON, Synop. N. A. Syrph., 148, transl. orig. desc.
- pulchripes* BIGOT, see *picta*.
- purpurascens* LOEW, Cent., viii, 52.—Hayti.
- WILLISTON, Synop. N. A. Syrph., 148, transl. orig. desc.
- Jamaica—Johnson.

- purpurifera** BIGOT, Annales, 1875, 477, 481 (*tricincta*, *purpurifera*, and *varians*): 1883, 63, syn. of *varians*.—Oaxaca, Mex.
 WILLISTON, Biologia, Dipt., III, 54, redesc.; syn.—Oaxaca, Mex.
- pusilla** MACQUART, Dipt. Exot., II, 2, 21, pl. v, f. 3.—Cuba.
 WILLISTON, Synop. N. A. Syrph., 144, pl. vi, f. 3.—Fla.
 St. Augustine and Georgiana, Fla.—Johnson; Porto Rico—Roeder.
- quadrata** WILLISTON, Biologia, Dipt., III, 46, pl. 1, f. 12.—Guerrero, Mex.
- rafaelana** TOWNSEND, Annals and Mag. Nat. Hist., xx, 28.—Vera Cruz.
- satur** OSTEN SACKEN, West. Dipt., 333.—Utah, Col.
 WILLISTON, Synop. N. A. Syrph., 142, pl. vi, f. 11.—W. Kans., Col.
 N. M.—Snow.
- setigera** OSTEN SACKEN, see *haagi*.
- sexpunctata** LOEW, see *pallens*.
- sodomis** TOWNSEND, Proc. Cal. Acad. Sci., iv, 66.—Lower Cal.
- tamaulipana** TOWNSEND, Jour. N. Y. Ent. Soc., vi, 51.—Brownsville, Tex.
- tau** BIGOT, Annales, 1883, 84.—Mex.
 WILLISTON, Synop. N. A. Syrph., pl. vi, f. 13.—Cal.
 Col., N. M.—Snow.
- testacea** VAN DER WULP, Tijdschr. v. Ent., xxxiv, 203.—Curacao.
- tibialis** MACQUART, Dipt. Exot., Suppl. I, 123.—Yucatan.
- tolteca** TOWNSEND, Trans. Amer. Ent. Soc., xxii, 45; Proc. Cal. Acad. Sci., iv, 616, notes.—Guanaxuato, Mex.; Lower Cal.
- tricincta** BIGOT, see *purpurifera*.
- tristis** BIGOT, Annales, 1875, 482; 1883, 70 (*tristis*); 1883, 81, 86 (*Phalacromyia mclanorhina*).—Mexico. [G. T.]
 GIGLIO-TOS, Ditt. del Mess., I, 54, syn., etc.; may be same as *Phalac. subrostrata* ROND., from Brazil.—Orizaba, Tuxpango, Tehuacan, Mex.
- tympantitis** FABRICIUS, Syst. Antl., 226 (*Syrphus*).—S. A.
 WIEDEMANN, Auss. Zweifl., II, 200.
 WILLISTON, Trans. Amer. Ent. Soc., xv, 275; Biologia, Dipt., III, 52, oc.
 —Brazil; Mexico and Panama.
- unilecta** WALKER, Trans. Ent. Soc., n. ser., v, 292 (*Temnocera*).—Mex.
- vacua** FABRICIUS, Syst. Ent., 763 (*Syrphus*); Ent. Syst., iv, 281 (id.); Syst. Antl., 227 (id.).—W. I.
 WIEDEMANN, Auss. Zweifl., II, 202.—S. A.
 WALKER, List, III, 637, oc. in Ga. and Fla.
 TOWNSEND, Trans. Amer. Ent. Soc., xxii, 46, redesc.—Jamaica.
- varians** BIGOT, Annales, see *purpurifera*.
- variegata** BIGOT, Annales, 1875, 478.—Mex.
 GIGLIO-TOS, Ditt. del Mess., I, 51.—Orizaba; *comastes* WILL. may be the same.
- vesiculosa** FABRICIUS, Syst. Antl., 226 (*Syrphus*).—S. A.
 WIEDEMANN, Auss. Zweifl., II, 201.—S. A.
 MACQUART, Dipt. Exot., Suppl. III, 39, pl. iv, f. 3.—N. A.
 WILLISTON, Synop. N. A. Syrph., 141, pl. vi, f. 1.—Pa., Conn., Md., Ky., Fla.
 N. J.—Smith Cat.; Inverness, Fla.—Johnson.
- victoria** WILLISTON, Synop. N. A. Syrph., 145.—N. M.
 TOWNSEND, Psyche, 1898, 267, oc.; Annals and Mag. Nat. Hist., xix, 141, notes.—Both N. M.
- violacea** SAY, see *esuriens*.
- viridana** TOWNSEND, Annals and Mag. Nat. Hist., xx, 30.—Vera Cruz.
- viridula** WALKER, Trans. Ent. Soc., n. ser., v, 292 (*Temnocera*).—Mex.

viridula BIGOT, see *Phalacromyia vaga*.

volucris GIGLIO-TOS, Boll. R. Univ. Torino, VII, No. 123, 1892; Ditt. del Mess., 1, 61.—Orizaba, Mex.

MEGAMETOPON.

GIGLIO-TOS, Boll. R. Univ. Torino, VI, No. 108, 5, fig., Sept., 1891; Ditt. del Mess., 1, 43, 1892.

WILLISTON, Biologia, Dipt., III, 55, pl. II, f. 1 (Dec., 1891) (*Ophromyia*).

nasicum WILLISTON, Biologia, Dipt., III, 55 and 79, pl. II, f. 1 (*Ophromyia*).—Guerrero, Mex.

GIGLIO-TOS, Ditt. del Mess., 1, 44, pl. I, f. 12.—Guerrero, Mex.

PHALACROMYIA.

RONDANI, Esame . . . Ins. Ditt. Brasil, Torino, 1848.

THOMSON, Eugen. Resa, 593, 1868 (*Glaurotricha*). [Will.]

BIGOT, Annales, 1883, 64 and 81, table of species.

WILLISTON, Synop. N. A. Syrph., 297, 1886, note; Biologia, Dipt., III, 40, 1891, table of Cent. Amer. species.

bellula WILLISTON, Biologia, Dipt., III, 42.—N. Yucatan, Mex.

melanorhina BIGOT, see *Volucella tristis*.

pica SCHINER, Novara, 355, pl. IV, f. 6.—Colombia.

? WILLISTON, Biologia, Dipt., III, 41, doubtfully ident. from Misantla, Mex.

pulchra WILLISTON, Biologia, Dipt., III, 41.—Costa Rica.

vaga WIEDEMANN, Auss. Zweifl., II, 205 (*Volucello*).—Brazil.

SCHINER, Novara, 355, note.

BIGOT, Annales, 1875, 481 (*Volucella viridula*); 1883, 62, syn.—Mex.

WILLISTON, Biologia, Dipt., III, 42, oc. in Mex.

GIGLIO-TOS, Ditt. del Mess., 1, 56 (*Volucella*).—Guerrero and Orizaba, Mex.

vicina BIGOT, Annales, 1883, 86.—Mex.

virescens WILLISTON, Biologia, Dipt., III, 42.—Guatemala.

volucelloides BIGOT, Annales, 1884, 548 (*Glaurotricha*), from Mexico, should perhaps be placed here, as Williston, Biologia, Dipt., III, 43, says that *Glaurotricha* is hardly distinct from *Phalacromyia*.

SERICOMYIA.

MEIGEN, Illig. Mag., II, 274, 1803; Syst. Besch., III, 342, 1822.

SCHINER, Fauna Austr., I, 330, 1862.

WILLISTON, Synop. N. A. Syrph., 153, 1886, def. and table of species.

VERRALL, Brit. Flies, VIII, 634, 1901.

CHAGNON, Ét. Prélim. les Syrph., 48, 1901.

bifasciata WILLISTON, Synop. N. A. Syrph., 154.—N. H.

Pa.—Johnson; Axton, N. Y.—M. and H.

chalcopsyga LOEW, Cent., III, 20.—Sitka.

WILLISTON, Synop. N. A. Syrph., 156, pl. VII, f. 2.—Wash., Ore.

COQUILLETT, Proc. Wash. Acad. Sci., II, 435, oc. in Alaska and White Mts., N. H.

Axton, N. Y.—M. and H.; N. Idaho—J. M. A.

chrysotoxoides MACQUART, Dipt. Exot., II, 2, 19, pl. III, f. 3 bis; Suppl. II, 58, female (*limbipennis*).—Philadelphia; Nova Scotia. [O. S.]

WALKER, List, III, 596 (*filia*).—Martin Falls and Nova Scotia. [O. S.]

OSTEN SACKEN, Cat., 130, syn.

WILLISTON, Synop. N. A. Syrph., 157, pl. VII, f. 4.—Atlantic States and Canada.

CHAGNON, Ét. Prélim. les Syrph., 49.—Montreal.

N. J.—Smith Cat.; White Mts., N. H.—Slosson; Sea Cliff, N. Y.—Banks.

lappona LINNÉ, Syst. Nat., 10th ed., 591 (*Musca*); Fauna Suec., 2d ed., 443 (id.).—Europe.

FABRICIUS, Spec. Ins., 422; Ent. Syst., iv, 280; Syst. Antl., 226 (all *Syrphus lapponum*).

LATREILLE, Hist. Nat. Crust. et Ins., xiv, 265 (*Volucella*); Consid. Génér., 443.

FALLÉN, Syrphici, 20 (*lapponum*).

MEIGEN, Syst. Besch., iii, 344.

MACQUART, Hist. Nat. Dipt., i, 496.

ZETTERSTEDT, Ins. Lapp., 590; Dipt. Scand., ii, 646.

SCHINER, Verh. Zool.-Bot. Ges., vii, 437; Fauna Austr., i, 331.

VAN DER WULP, Tijdschr. v. Ent., xxv, 126, oc. at Quebec.

WILLISTON, Synop. N. A. Syrph., 154.—Quebec (v. d. W.).

VERRALL, Brit. Flies, viii, 637, fig.

Note.—The *Volucella lappona* of O. Fabricius is mentioned under *Syrphus tarsatus*.

✓ **militaris** WALKER, List, iii, 595.—Martin Falls and Nova Scotia.

WILLISTON, Synop. N. A. Syrph., 155, pl. vii, f. 3.—White Mts., N. H.; Canada, New York, New Mexico.

SNOW, Kans. Univ. Quart., i, 37, notes.—Minn., Col.

TOWNSEND, Trans. Amer. Ent. Soc., xxii, 46, notes.—Col.

CHAGNON, Ét. Prélim. les Syrph., 48.—Montreal.

Axton, N. Y.—M. and H.; Beulah, N. M.—Skinner; White Mts., N. H.—Slosson; Col. and Red R. of the North—O. S. Cat.

sexfasciata WALKER, List, iii, 596.—Martin Falls, Canada.

WILLISTON, Synop. N. A. Syrph., 155.—Huds. B. Terr.

ARCTOPHILA.

SCHINER, Wien. Ent. Monatsch., iv, 215, 1860; Fauna Austr., i, 331, 1862.

WILLISTON, Synop. N. A. Syrph., 157, 1886.

VERRALL, Brit. Flies, viii, 631, 1901.

flagrans OSTEN SACKEN, Bull. Buff. Soc. Nat. Sci., iii, 69; West. Dipt., 335.—Mts. of Col.

WILLISTON, Synop. N. A. Dipt., 158, pl. vii, f. 5.—N. M.

TOWNSEND, Trans. Amer. Ent. Soc., xxii, 47, notes.—Col.

COQUILLET, Proc. Wash. Acad. Sci., ii, 434, oc. in Popof Id., Alaska.

N. M.—Coquillett; N. M., up to 10,000 ft.—Snow; Black Hills, S. D.—J. M. A.

PYRITIS.

HUNTER, Canad. Ent., xxix, 131, 1897.

kincaidii COQUILLET, Ent. News, vi, 132 (*Volucella*).—Wash. Gen. ref. by Melander in litt.

montigena HUNTER, loc. cit.—Moscow, Idaho.

DOLIOSYRPHUS.

BIGOT, Bull. Soc. Ent. France, 1882, No. 13; Annales, 1883, 237.

WILLISTON, Synop. N. A. Syrph., 178, 1886.

hirtipes BIGOT, Bull. Soc. Ent. France, 1882, No. 13; Annales, 1883, 343.—Panama.

rileyi WILLISTON, Synop. N. A. Syrph., 178, pl. viii, f. 8.—N. M.

scutellatus BIGOT, Bull. Soc. Ent. France, 1882, No. 13; Annales, 1883, 342.—Panama.

ERISTALIS.

- LATREILLE, Dict. d'Hist. Nat., 1804; Hist. Nat. Crust. et Ins., xiv, 363, 1804.
- MEIGEN, Syst. Besch., iii, 381, 1822.
- RONDANI, Dipt. Ital. Prod., ii, 40, 1857 (*Eristalinus* and *Eristalomyia*).
- SCHINER, Fauna Austr., i, 332, 1862.
- WILLISTON, Synop. N. A. Syrph., 158, def. and table of species, 1886; Biologia, Dipt., iii, 56, 1891, table of Central American spp.
- MIK, Wien. Ent. Zeit., xvi, 113, 1897, divides into five genera.
- VERRALL, Brit. Flies, viii, 493, 1901, adopts five subgenera.
- CHAGNON, Ét. Prélim. les Syrph., 50, 1901.
- æmulus** WILLISTON, Biologia, Dipt., iii, 64, pl. ii, f. 5.—Guerrero, Mex.; Guatemala and Panama.
- GIGLIO-TOS, Ditt. del Mess., ii, 13, oc. in Mex., several places.
- æneus** SCOPOLI, Ent. Carniol., 356 (*Conops*).—Europe.
- FABRICIUS, Ent. Syst., iv, 302 (*Syrphus*); Syst. Antl., 244.
- FALLÉN, Syrphici, 28 (*Syrphus*).
- MEIGEN, Syst. Besch., iii, 384.
- WIEDEMANN, Auss. Zweifl., ii, 190 (*cuprovittatus*).—N. A. [Verrall, from types.]
- HARRIS, Ins. Inj. to Veg., 3d ed., 609 (*sincerus*).—Mass.
- ZETTERSTEDT, Dipt. Scand., ii, 668 (*Syrphus*).
- WALKER, List, iii, 611 (*sincerus*).—U. S.
- SCHINER, Fauna Austr., i, 333.
- LOEW, in Silliman's Jour., syn. and oc. in N. A.
- WILLISTON, Synop. N. A. Syrph., 161.—Europe and N. A.
- MIK, Wien. Ent. Zeit., xvi, 113, refers to *Lathyrophthalmus*, n. g.
- VERRALL, Brit. Flies, viii, 501 (subg. *Lathyrophthalmus*).
- Sea Cliff, N. Y.—Banks; N. J.—Smith Cat.; N. Africa and Asia Minor—Schiner.
- agrorum** FABRICIUS, Ent. Syst., iv, 285 (*Syrphus*); Syst. Antl., 235.—W. I.
- WIEDEMANN, Auss. Zweifl., ii, 172.—S. A.
- VAN DER WULP, Tijdschr. v. Ent., xxv, 130, oc. in Guadeloupe and Argentina.
- albiceps** MACQUART, see *albifrons*.
- albifrons** WIEDEMANN, Auss. Zweifl., ii, 189.—Brazil.
- MACQUART, Dipt. Exot., ii, 2, 56 (*albiceps*).—Carolina.
- LOEW, Cent., vi, 63 (*seniculus*).—Cuba.
- OSTEN SACKEN, Cat., 249, note 221.
- ROEDER, Stett. Ent. Zeit., 1885, 341.—Porto Rico.
- WILLISTON, Trans. Amer. Ent. Soc., xv, 283; Synop. N. A. Syrph., 172 (*albiceps*); Biologia, Dipt., iii, 62, syn., etc.; Ent. News, iii, 146, bibl.—Brazil; Ga.; Fla., San Domingo; Tabasco, Mex.
- Jamaica and Fla.—Johnson.
- androclus** WALKER, see *Helophilus*; the species determined as this by Osten Sacken is placed by Hunter as *mcigenii*.
- atrimanus** LOEW, Cent., vi, 62.—Cuba.
- WILLISTON, Synop. N. A. Syrph., 173.—San Domingo.
- Jamaica—Johnson.
- atriceps** LOEW, see *compactus*.
- atropos** GIGLIO-TOS, Boll. R. Univ. Torino, vii, No. 123, 1892; Ditt. del Mess., ii, 14, pl. ii, f. 23.—Mex.

basilaris MACQUART, Hist. Nat. Dipt., 1, 502.—N. A.

OSTEN SACKEN, Cat., 133, note.

bastardii MACQUART, Dipt. Exot., 11, 2, 35, pl. IX, f. 1; Suppl. IV, 140 (*semimetallicus*).—N. A.; Nova Scotia.

WALKER, List, III, 616 (*nebulosus*).—N. Y., Martin Falls, and Nova Scotia.

OSTEN SACKEN, Cat., 131, and note, syn.

VAN DER WULP, Tijdschr. v. Ent., XXV, 128, oc. at Quebec.

WILLISTON, Synop. N. A. Syrph., 168, New Eng., Canada, Labrador.

TOWNSEND, Trans. Amer. Ent. Soc., XXII, 48, notes.—D. C.

CHAGNON, Ét. Prélim. les Syrph., 55.—St. Jean and Montreal, Quebec.

N. J.—Smith Cat.

bellardii JÆNNICKE, see *bogotensis*.

bogotensis MACQUART, Dipt. Exot., 11, 2, 52.—Bogota.

JÆNNICKE, Neue Exot. Dipt., 400 (*bellardii*).—Mex.

BIGOT, Annales, 1880, 221 (*Eristalomyia rufoscutata*).—Mex.

VAN DER WULP, Tijdschr. v. Ent., XXV, 129; Notes from the Leyden Mus., v, 79.—Argentina.

F. LYNCH ARRIBALZAGA, Dipt. Argentina, Syrph., 253.—Argentina.

WILLISTON, Biologia, Dipt., III, 60 (*bellardii*).—Durango, Mex.

GIGLIO-TOS, Ditt. del Mess., II, 4, syn., etc.—Oaxaca, Angang, Mex.

bombusoides (!) GIGLIO-TOS, see *circe*.

brousi WILLISTON, see *meigenii*.

circe WILLISTON, Biologia, Dipt., III, 59, pl. II, f. 7.—Guerrero and Jalapa, Mex.

GIGLIO-TOS, Boll. R. Univ. Torino, VII, No. 123, 1892 (*bombusoides*);

Ditt. del Mess., II, 3.—Oaxaca.

clarissimus GIGLIO-TOS, Boll. R. Univ. Torino, VII, No. 123, 1892; Ditt. del Mess., II, 11.—Tuxpango, Mex.

compactus WALKER, List, III, 619.—Martin Falls, Canada.

LOEW, Cent., VI, 64 (*atriceps*).—White Mts., N. H. [Will.]

WILLISTON, Synop. N. A. Syrph., 169, pl. VII, f. 9.—Conn.

COQUILLETT, Proc. Wash. Acad. Sci., II, 435, oc. in Alaska.

Canada—O. S. Cat.; White Mts., N. H.—Slosson.

cosmius SCHINER, Novara, 362.—S. A.

? WILLISTON, Biologia, Dipt., III, 61, doubtfully recognized from Jalapa, Mex.

cubensis MACQUART, Dipt. Exot., II, 2, 42.—Cuba; may be the female of *albifrons* or a var. of *annulipes*—Meq., loc. cit.

dimidiatus WIEDEMANN, Auss. Zweifl., II, 180.—N. A.

MACQUART, Hist. Nat. Dipt., 1, 505 (*niger*); Dipt. Exot., II, 2, 55 (*phermicrii* and *chalybeus*, male and female); Suppl. IV, 139 (*incisuralis*).

—N. A.; Carolina; Carolina; N. A. [All by O. S., Cat., 131.]

WALKER, List, III, 617 (*inflexus*).—Martin Falls and Nova Scotia. [O. S.]

WILLISTON, Synop. N. A. Syrph., 162.—Conn., D. C., N. H., Kans.

RILEY and HOWARD, Ins. Life, II, 261, ref. to an alleged case of the larva of this species passing from the bowels of a human being.

TOWNSEND, Trans. Amer. Ent. Soc., XXII, 48, notes.—D. C.

CHAGNON, Ét. Prélim. les Syrph., 52.—St. Hilaire, St. Jean and Montreal, Quebec.

N. J.—Smith Cat.; White Mts., N. H.—Slosson; Fla.—Johnson; Sea Cliff, N. Y.—Banks.

diminutus WALKER, List, III, 622.—Mex.

everes WALKER, Dipt. Saund., 246.—N. A.

expictus WALKER, Trans. Ent. Soc., n. ser., v, 291.—Mex.

familiaris WALKER, Trans. Ent. Soc., n. ser., v, 290.—Mex.

fasciatus WIEDEMANN, Zool. Mag. Kiel, i, 51; Auss. Zweifl., ii, 173.—Brazil.

MACQUART, Dipt. Exot., ii, 2, 38 and 57 (*podagra* and *fasciatus*); Suppl. v, 87 (*bifasciatus*).—Brazil; S. A.; Brazil. [Will.]

RONDANI, Studi Ent., 68.—Brazil.

WILLISTON, Trans. Amer. Ent. Soc., xv, 281 (*podagra*); Biologia, Dipt., iii, 62, oc. and syn.—Brazil; Tabasco, Mex.

flavipes WALKER, List, iii, 633.—Martin Falls, Canada.

SAY, Jour. Acad. Sci. Phil., vi, 163; Compl. Works, ii, 357 (*Milesia barda*; the male is *Mallota posticata*).—Ind. [O. S.]

LOEW, Cent., vi, 69 (*melanostomus*).—Minn., Ore. [Will.]

WILLISTON, Synop. N. A. Syrph., 168.—Canada, New Eng., Wash.

HUNTER, Canad. Ent., xxviii, 99, oc. and predaceous habit of adult.—Nebr.

TOWNSEND, Trans. Amer. Ent. Soc., xxii, 48, notes.—Col.

COQUILLET, Proc. Wash. Acad. Sci., ii, 435, oc. in Alaska.

CHAGNON, Ét. Prélim. les Syrph., 53.—Montreal.

N. J.—Smith Cat.; Sea Cliff, N. Y.; Col.—Snow.

fulvipes BIGOT, Annales, 1880, 225 (*Eristalomyia*).—Mex.

furcatus WIEDEMANN, Zool. Mag. Kiel, i, 51; Auss. Zweifl., ii, 176.—Bahia and Montevideo.

MACQUART, Dipt. Exot., ii, 2, 40, pl. ix, f. 6 (*femoratus*).—Rio Janeiro.

SCHINER, Novara, 362, syn. and note.—Brazil and Colombia.

VAN DER WULP, Tijdschr. v. Ent., xxv, 131, oc. and note.—Argentina.

WILLISTON, Trans. Amer. Ent. Soc., xv, 279; Biologia, Dipt., iii, 61, oc.—Brazil; Mexico, common.

TOWNSEND, Jour. N. Y. Ent. Soc., v, 174, oc. and notes.—Brownsville, Tex.

GIGLIO-TOS, Ditt. del Mess., ii, 15.—Mexico, common.

guadelupensis MACQUART, Dipt. Exot., ii, 2, 32.—Guadeloupe.

gundlachi LOEW, Cent., vi, 61.—Cuba.

hirtus LOEW, see *temporalis*.

hortorum FABRICIUS, Syst. Ent., 764 (*Syrphus*); Ent. Syst., iv, 286 (id.); Syst. Antl., 236.—W. I.

DEGEER, Mém. Hist. Ins., vi, 145, pl. xxix, f. i (*Musca surinamensis*).—Surinam. [Fabr.]

WIEDEMANN, Auss. Zweifl., ii, 169.—St. Thomas, W. I.

WILLISTON, Synop. N. A. Syrph., 173, pl. vii, f. 10.—San Domingo.

impositus WALKER, Trans. Ent. Soc., n. ser., v, 289.—Hayti.

inflatus MACQUART, Hist. Nat. Dipt., i, 507.—N. A.

OSTEN SACKEN, Cat., 133, note; not seen.

inornatus LOEW, Cent., vi, 68.—Red R. of the North.

WILLISTON, Synop. N. A. Syrph., 175, transl. of orig. desc.

Craig's Mt., Ida.—J. M. A.

lateralis WALKER, Linn. Trans., xvii, 347; List, iii, 622.—Brazil, Chili, Guiana, Mexico, Jamaica.

latifrons LOEW, Cent., vi, 65.—Matamoras, Mex.

OSTEN SACKEN, West. Dipt., 336 (*stipator*).—Col., N. M., Cal.

WILLISTON, Proc. Amer. Phil. Soc., xx, 319 (*stipator*); Synop. N. A. Syrph., 164; Biologia, Dipt., iii, 60, oc.—Col.; Cal., Arizona, N. M., Tex., Kans.; N. Sonora and Guerrero, Mex.

SNOW, Kans. Univ. Quart., i, 38, notes.—Col.

GIGLIO-TOS, Ditt. del Mess., ii, 5.—Tehuacan, Mex.

TOWNSEND, Proc. Cal. Acad. Sci., iv, 617, oc.; Psyche, 1897, 40, 93, notes: Trans. Amer. Ent. Soc., xxii, 49, notes.—Cal.; N. M.; Ariz., Cal., N. M.

HUNTER, Canad. Ent., xxviii, 97, oc. and notes.—Nebr., S. D., Cal., Mex. Beulah, N. M.—Skinner.

var. **maculipennis** TOWNSEND, Psyche, 1897, 93.—N. M.

var. **meigenii** WIEDEMANN, Auss. Zweifl., ii, 177.—S. A.

THOMSON, Eugen. Resa, 419 (*foveifrons*).—S. A.

OSTEN SACKEN, West. Dipt., 337 (*androclus* WALK.); Cat., 131, 249, note (*androclus* O. S., Walker's species proving to be a *Hclophilus*).—N. H. to Utah and Alaska.

WILLISTON, Proc. Amer. Phil. Soc., xx, 323, female (*brousi*); 319, male (*meigenii*); Synop. N. A. Syrph., 165, 166 (*meigenii* and *brousi*).—New Eng. to Alaska.

TOWNSEND, Trans. Amer. Ent. Soc., xxii, 48, notes.—N. H., Col.

HUNTER, Canad. Ent., xxviii, 98 (*brousi*); xxix, 133, full syn.—S. D., Ida., Wyo.

COQUILLET, Proc. Wash. Acad. Sci., ii, 435, oc. in Alaska.

CHAGNON, Ét. Prélim. les Syrph., 51.—Montreal.

N. J.—Smith Cat.

melanostoma LOEW, see *flavipes*.

mexicanus MACQUART, Dipt. Exot., Suppl. ii, 59.—Mex.

GIGLIO-TOS, Ditt. del Mess., ii, 5.—Mexico City.

minutalis WILLISTON, Biologia, Dipt., iii, 64, pl. ii, f. 6.—Tabasco, Mex.

montanus WILLISTON, Proc. Amer. Phil. Soc., xx, 322; Synop. N. A. Syrph., 166.—Wyo.

HUNTER, Canad. Ent., xxviii, 98; xxix, 134, oc. and notes.—Ida.; Nebr.

nemorum LINNÉ, Syst. Nat., 10th ed., 591 (*Musca*); Fauna Suec., 2d ed., 444 (id.).—Europe.

MEIGEN, Syst. Besch., iii, 394 and vii, 144 (*nemorum* and *sylvorum*).

SCHINER, Fauna Austr., i, 336, 337 (id.).

? VAN DER WULP, Tijdschr. v. Ent., xxv, 128, doubtful oc. at Quebec.

VERRALL, Brit. Flies, viii, 514, fig.

obscurus LOEW, Cent., vi, 67.—Red R. of the North.

WILLISTON, Synop. N. A. Syrph., 175, trans. orig. desc.

COQUILLET, Proc. Wash. Acad. Sci., ii, 436, oc. at Fox Point, Alaska.

Hudsonian Zone, N. M.—Cockerell.

obsoletus WIEDEMANN, Auss. Zweifl., ii, 175.—Brazil.

MACQUART, Dipt. Exot., Suppl. iv, 138 (*testaccornis*).—Mex. [Will.]

SCHINER, Novara, 361, redesc.—S. A.

BIGOT, Annales, 1880, 224 (*Eristalomyia pachypoda*).—Mex.

WILLISTON, Trans. Amer. Ent. Soc., xv, 279; Biologia, Dipt., iii, 59, 60 (*obsoletus* and *pachypoda*).—Brazil; Mexico, several places, and Costa Rica.

GIGLIO-TOS, Ditt. del Mess., ii, 7, syn. and oc.—Orizaba and Cuernavaca, Mex.

TOWNSEND, Proc. Cal. Acad. Sci., iv, 617, note.—Lower Cal.

occidentalis WILLISTON, Proc. Amer. Phil. Soc., xx, 322; Synop. N. A. Syrph., 167.—Wash.

HUNTER, Canad. Ent., xxix, 133, oc. at Cook's Inlet, Alaska.

COQUILLET, Proc. Wash. Acad. Sci., ii, 435, oc. in Alaska, sev. places.

ochraceus WILLISTON, Trans. Amer. Ent. Soc., xv, 279; *Biologia*, Dipt., iii, 60, female.—Brazil; Tabasco, Mex.

œstriformis WALKER, List, iii, 573.—Martin Falls, Canada.

OSTEN SACKEN, Cat., 249, note 227, on type.

WILLISTON, Synop. N. A. Syrph., 176, quotes Walker and Osten Sacken.

opulentus BIGOT, see *Mcromacrus*.

ornatus TOWNSEND, Annals and Mag. Nat. Hist., xix, 21.—Vera Cruz, Mex.

pachypoda BIGOT, see *obsoletus*.

parens BIGOT, Annales, 1880, 216.—N. A.

WILLISTON, Synop. N. A. Syrph., 177, quotes orig. desc.

persa WILLISTON, *Biologia*, Dipt., iii, 58.—Guerrero, Mex.

pilosus LOEW, Cent., vi, 70.—Greenland.

WILLISTON, Synop. N. A. Syrph., 174, transl. of orig. desc.

præclarus GIGLIO-TOS, see *rufiventris*.

pusillus MACQUART, Dipt. Exot., ii, 2, 54.—Yucatan.

JÆNNICKE, Neue Exot. Dipt., 400 (*tricolor*).—Mex. [G. T.]

WILLISTON, *Biologia*, Dipt., iii, 62 (*tricolor*).—Mexico, several places.

TOWNSEND, Jour. N. Y. Ent. Soc., v, 175, oc. (*tricolor*); Proc. Cal. Acad. Sci., iv, 617 (id.).—Brownsville, Tex.; Lower Cal.

GIGLIO-TOS, Ditt. del Mess., ii, 10, syn., etc.—Mexico, many places.

pusio WIEDEMANN, Auss. Zweifl., ii, 192.—Brazil.

ROEDER, Stett. Ent. Zeit., 1885, 341.—Porto Rico.

ruficeps MACQUART, Dipt. Exot., ii, 2, 51.—Bogota.

JÆNNICKE, Neue Exot. Dipt., 91 (*thoracica*).—Mex. [G. T.]

WILLISTON, Ent. News, iii, 146, would make *thoracica* a syn. of *obsoletus*.

GIGLIO-TOS, Ditt. del Mess., ii, 6.—Tehuacan, Mex.

rufiventris MACQUART, Dipt. Exot., Suppl. 1, 129.—Colombia.

WILLISTON, Trans. Amer. Ent. Soc., xv, 282; *Biologia*, Dipt., iii, 65, oc. and note.—Brazil; Tabasco, Mex.

GIGLIO-TOS, Boll. R. Univ. Torino, vii, No. 123 1892 (*præclarus*); Ditt. del Mess., ii, 11.—Tabasco and Tuxpango, Mex.

rufoscutatus BIGOT, see *bogotensis*.

sackeni BIGOT, Annales, 1880 (*Eristalomyia sackenis*).—Mex.

sallæi GIGLIO-TOS, Boll. R. Univ. Torino, vii, No. 123, 1892; Ditt. del Mess., ii, 12.—Mexico City.

saxorum WIEDEMANN, Auss. Zweifl., ii, 158.—Savannah, Ga.

MACQUART, Dipt. Exot., ii, 2, 33.—Philadelphia.

WALKER, List, iii, 618 (*pervagus* HARRIS, Cat. Ins. Mass.).—U. S. [O. S.]

WILLISTON, Synop. N. A. Syrph., 163.—Mass., Conn., N. C., Pa.

N. J.—Smith Cat.

scutellaris FABRICIUS, Syst. Antl., 190 (*Milesia*).—S. A.

WIEDEMANN, Auss. Zweifl., ii, 159.—Brazil.

MACQUART, Hist. Nat. Dipt., i, 513 (*Palpada scutellata*); Dipt. Exot., ii, 2, 38 and 41 (*scutellatus* and *scutellaris*); Suppl., iv, 139 (*fascithorax*).—Brazil; Brazil and Cayenne; America.

SCHINER, Novara, 364, notes; syn. of *scutellata*, and probably of *fascithorax*.—S. A.

BIGOT, Annales, 1883, 222, note on Macquart's types of *scutellata* (*Priomercus*); 342 (*Doliosyrphus scutellatus* n. sp.).—Panama. [G. T.]

WILLISTON, Trans. Amer. Ent. Soc., xv, 279; Synop. N. A. Syrph., 178, pl. viii, f. 8 (*Doliosyrphus rileyi*); *Biologia*, Dipt., iii, 63, oc. and syn.; Ent. News, iii, 146, syn.—Brazil; New Mexico; Panama and Mexico,

several places.

GIGLIO-TOS, Ditt. del Mess., II, 12.—Mexico City.

semicirculus WALKER, Dipt. Saund., 249.—Honduras.

seniculus LOEW, see *albifrons*.

soulouquensis BIGOT, Annales, 1880, 228 (*Eristalomyia*).—Hayti.

stipator OSTEN SACKEN, see *latifrons*.

sumichrasti GIGLIO-TOS, Boll. R. Univ. Torino, VII, no. 123, 1892; Ditt. del Mess., II, 6.—Tehuacan, Mex.

temporalis THOMSON, Eugen. Resa, 490.—Cal.

LOEW, Cent., VI, 66 (*hirtus*).—Cal. [O. S.]

OSTEN SACKEN, West. Dipt., 335 (*hirtus*), desc. and correction of Loew.—Cal. and Col., common.

WILLISTON, Synop. N. A. Syrph., 162 (*hirtus*).—Wash., Ore., Cal., W. Kans.

TOWNSEND, Trans. Amer. Ent. Soc., XXII, 49, notes (*hirtus*).—Ariz., Col.

BAKER, Ent. News, VI, 174, reared at Ft. Collins, Col.; larvæ in ooze at mouth of drain (*hirtus*).

tenax LINNÉ, Syst. Nat., 10th ed., 591 (*Musca*); Fauna Suec., 2d ed., 444 (id.).—Europe.

SCOPOLI, Ent. Carniol., No. 960, 961 (*Conops vulgaris* and *fuscus*).

FABRICIUS, Syst. Ent., 765 (*Syrphus*); Ent. Syst., IV, 288 (id.); Syst. Antl., 238.

FALLÉN, Syrphici, 26.

LATREILLE, Consid. Génér., 443 (*Elophilus*).

MEIGEN, Syst. Besch., III, 385–388 (*tenax*, *campestris*, *hortorum*, *sylvaticus*, *vulpinus*).

ZETTERSTEDT, Dipt. Scand., II, 661; VIII, 3113; XI, 4301; XII, 4651.

WALKER, Ins. Brit., Dipt., I, 243, pl. IX, f. 5.

SCHINER, Verh. Zool.-Bot. Ges., VII, 390; Fauna Austr., I, 334.

BRAUER, Zweifl. des Kaiserl. Mus., III, 69, 1883, bibliog. of larval stages, from Réaumur down.

OSTEN SACKEN, Ent. Mo. Mag., XXIII, 1883, 97, spread in North America, etc.; Bull. Soc. Ent. Ital., 1893, 186–217 (also reprinted in English at Heidelberg, 1894), "On the So-called Bugonia of the Ancients" (translation in Smithsonian Report, 1893); Berl. Ent. Zeitsch., XL, 1895, 142–147, early Chinese and Japanese literature of the larva.

WILLISTON, Synop. N. A. Syrph., 160, pl. VII, f. 7.—New Eng., Central and Pacific States.

RILEY and HOWARD, Ins. Life, II, 262, alleged case of the larvæ occurring in the human intestine; III, 22, larvæ in well, not positively identified.

MIALL, Nat. Hist. of Aquatic Insects, London, 1895, pp. 198–215, larva, etc.

TOWNSEND, Trans. Amer. Ent. Soc., XXII, 49, notes.—D. C., Cal.; Guanajuato, Mex.

VERRALL, Brit. Flies, VIII, 505, figs.

CHAGNON, Ét. Prélim. les Syrph., 51.—Montreal.

N. J.—Smith Cat.; White Mts., N. H.—Slosson; Sea Cliff, N. Y.—Banks; Beulah, N. M.—Skinner; Axton, N. Y.—M. and H.

Note.—Linné, in Fauna Suec.—"Habitat in aquis stagnantibus, cloacis, Bibliopagorum pappo, vix preli pressione destruenda larva."

testaceicornis MACQUART, see *obsoletus*.

thoracicus JENNICKE, see *obsoletus*.

transversus WIEDEMANN, Auss. Zweifl., II, 188.—N. A.

MACQUART, Hist. Nat. Dipt., I, 307 (*vittatus*); Dipt. Exot., II, 2, 34, pl.

- viii, f. 4 (*philadelphicus*); 57 (*pumilus*).—N. A.; Philadelphia; N. A. [O. S.]
- OSTEN SACKEN, Cat., 132 and note on Macq.; syn.
- BIGOT, Annales, 1880, 217 (*zonatus*).—N. A. [Will.]
- WILLISTON, Synop. N. A. Syrph., 170, pl. vii, f. 8.—Canada to Fla., Col., Ill., Kans.
- TOWNSEND, Trans. Amer. Ent. Soc., xxii, 49, oc.—Mich., Va., D. C.
- CHAGNON, Ét. Prélim. les Syrph., 52.—Montreal and St. Jean, Quebec.
- N. J.—Smith Cat.; Fla.—Johnson; Sea Cliff, N. Y.—Banks; Axton, N. Y.—M. and H.
- triangularis** GIGLIO-TOS, Boll. R. Univ. Torino, vii, No. 123, 1892; Ditt. del Mess., ii, 9.—Mexico, several places.
- WILLISTON, Trans. Amer. Ent. Soc., xv, 281; Biologia, Dipt., iii, 63 (both referred to as "*Eristalis*—?", not named).—Brazil; Mexico, several places. [G. T.]
- tricolor** JENNICKE, see *pusillus*.
- trigonus** WILLISTON, Biologia, Dipt., iii, 61, pl. ii, f. 4.—Guerrero, Mex.
- trilimbatus** GIGLIO-TOS, Boll. R. Univ. Torino, vii, No. 123, 1892; Ditt. del Mess., ii, 8.—Tuxpango, Mex.
- unicolor** VAN DER WULP, Tijdschr. v. Ent., xxv, 131, pl. x, f. 11-13.—Guadeloupe.
- vinetorum** FABRICIUS, Ent. Syst., Suppl. 562 (*Syrphus*); Syst. Antl., 235.—W. I. SAY, Jour. Acad. Sci. Phil., vi, 165; Compl. Works, ii, 359 (*trifasciatus*).—Mex.
- WIEDEMANN, Auss. Zweifl., ii, 163.—Brazil.
- MACQUART, Dipt. Exot., ii, 2, 41.—Guiana, Cuba and Philadelphia.
- WALKER, List, iii, 623 (*uvarum*).—Jamaica.
- F. LYNCH ARRIBALZAGA, Dipt. Argentina, Syrph., 116.—Argentina.
- WILLISTON, Trans. Amer. Ent. Soc., xv, 280; Synop. N. A. Syrph., 171, pl. vii, f. 8; Biologia, Dipt., iii, 63; Trans. Ent. Soc. Lond., 1896, 346, oc. and syn.—Brazil; Cuba, Fla., Ga., Mex.; Mex. and Guatemala; St. Vincent, W. I.
- TOWNSEND, Jour. N. Y. Ent. Soc., v, 175, oc.; Trans. Amer. Ent. Soc., xxii, 50, notes.—Brownsville, Tex.; Jamaica, Trinidad.
- Porto Rico—Roeder; Jamaica and Fla.—Johnson.
- zonatus** BIGOT, see *transversus*.

LYCASTRIRHYNCHA.

- BIGOT, Rev. et Mag. Zool., 1859, 307.
- WILLISTON, Biologia, Dipt., iii, 66, 1891.
- nitens** BIGOT, Rev. et Mag. Zool., 1859, 307.—Amazons.
- WILLISTON, Biologia, Dipt., iii, 66.—Vera Cruz, Mex.
- GIGLIO-TOS, Ditt. del Mess., ii, 17.—Cordova, Mex.
- willistonii** COQUILLETT, Canad. Ent., 1902, 196.—Frontera in Tabasco, Mex.

MEROMACRUS.

- RONDANI, Esam. di . . . Ins. Brasil., 1848, 10.
- MACQUART, Dipt. Exot., ii, 2, 59, 1842 (*Plagiocera*, preoc.).
- LOEW, Cent., vi, 59, 1865 (*Pteroptila*).
- WILLISTON, Synop. N. A. Syrph., 179, 1886, def. and table of species; Ent. News, iv, 114, note on syn.
- acutus** FABRICIUS, Syst. Antl., 189 (*Milesia*).—Carolina.
- WIEDEMANN, Auss. Zweifl., ii, 105 (*Milesia cruciger*); 110 (*Milesia acuta*).—Ga., Carolina.

MACQUART, Hist. Nat. Dipt., 1, 500 (*Mallota milcsiformis*); Dipt. Exot., II, 2, 60, pl. x, f. 7 (*Plagiocera cruciger*).—Cuba.

WILLISTON, Synop. N. A. Syrph., 180, pl. VIII, f. 1 (*Pteroptila crucigera*); Biologia, Dipt., III, 66 (id.).—Ga., Fla., Tex.; Vera Cruz and Tabasco, Mex.

cinctus DRURY, Ins., 1, 109, pl. XLV, f. 6 (*Musca*).—Jamaica, San Domingo.

FABRICIUS, Syst. Ent., 763 (*Syrphus pinguis*); Ent. Syst., IV, 282 (id.); Syst. Antl., 233 (*pinguis*).—America.

WIEDEMANN, Auss. Zweifl., II, 193 (*pinguis*).—Jamaica.

WALKER, List, III, 564 (*Milesia ania*).—Jamaica.

MACQUART, Dipt. Exot., Suppl. v, 94 (*pinguis*).—Jamaica.

WILLISTON, Synop. N. A. Syrph., 182.—San Domingo.

TOWNSEND, Trans. Amer. Ent. Soc., XXII, 50.—Jamaica.

Porto Rico—Roeder; Jamaica—Johnson.

decorus LOEW, Cent., VI, 50 (*Pteroptila*).—Cuba.

WILLISTON, Synop. N. A. Syrph., 181.—Cuba.

opulentus BIGOT, Annales, 1883, 336 (*Eristalis*).—Cuba.

pratorum FABRICIUS, Syst. Ent., 765 (*Syrphus*); Ent. Syst., IV, 286 (id.); Syst. Antl., 236 (*Eristalis*).—W. I.

WIEDEMANN, Auss. Zweifl., II, 166 (*Eristalis*).—S. A.

ROEDER, Stett. Ent. Zeit., 1885, oc. in Porto Rico.

WILLISTON, Trans. Ent. Soc. Lond., 1896, 346, oc. and bibliog.—St. Vincent, W. I.

ruficrus WIEDEMANN, Auss. Zweifl., II, 105 (*Milesia*).—Cuba.

WILLISTON, Synop. N. A. Syrph., 181 (*Pteroptila*).—Cuba.

zonatus LOEW, Cent., VI, 60 (*Pteroptila*).—Mex.

WILLISTON, Synop. N. A. Syrph., 182, transl. orig. desc. (id.); Biologia, Dipt., III, 67, pt. desc.—Mex.; Guerrero, Mex.

TROPIDIA.

MEIGEN, Syst. Besch., III, 346, 1822.

SCHINER, Fauna Austr., I, 348, 1862.

WILLISTON, Synop. N. A. Syrph., 206, def. and table of species, 1886.

HUNTER, Ent. News, VII, 215, 1896, table of species.

VERRALL, Brit. Flies, VIII, 567, 1901.

CHAGNON, Ét. Prélim. les Syrph., 60, 1901.

albistylum MACQUART, Dipt. Exot., Suppl. II, 60, pl. II, f. 10.—N. A.

WILLISTON, Synop. N. A. Syrph., 207, probably not distinct from *quad-rata*; Ent. News, III, 146, recognizes as distinct.

N. J.—Smith Cat.; Fla., several places—Johnson.

calcarata WILLISTON, Synop. N. A. Syrph., 208.—Mich.

N. J.—Smith Cat.

incana TOWNSEND, Trans. Amer. Ent. Soc., XXII, 52.—Ft. Collins, Col.

mamillata LOEW, Cent., I, 68.—Ill.

WILLISTON, Synop. N. A. Syrph., 208, transl. and note.

HUNTER, Canad. Ent., XXIX, 144, oc. in Nebr.

HINE, Ohio Nat., II, 229, oc. in Baldwin, Kans.

montana HUNTER, Ent. News, VII, 215 (*nigricornis*; name changed, p. 320).—Moscow, Idaho. See also further notes, Canad. Ent., XXIX, 143.

quadrata SAY, Amer. Entomology, I, pl. VIII, Compl. Works, I, 14 (*Xylota*).—Pa.

WIEDEMANN, Auss. Zweifl., II, 101, transl. of Say.

MACQUART, Dipt. Exot., II, 2, 72, gen. ref.

WILLISTON, Synop. N. A. Syrph., 207, pl. IX, f. 2.—Conn., Canada, Wash.
 CHAGNON, Ét. Prélim. les Syrph., 60.—Montreal.
 N. J.—Smith Cat.; Sea Cliff, N. Y.—Banks.

PLATYNOCÆTUS.

WIEDEMANN, Auss. Zweifl., II, 147, 1830.
niger GIGLIO-TOS, Boll. R. Univ. Torino, VII, No. 123, 1892; Ditt. del Mess., II, 20, pl. II, f. 1.—Orizaba, Mex.

HELOPHILUS.

MEIGEN, Illig. Mag., II, 274, 1803 (*Elophilus*); Syst. Besch., III, 368, 1822.
 SCHINER, Fauna Austr., I, 337, 1862.
 BIGOT, Bull. Soc. Ent. France, 1883, No. 2 (*Eurhimyia*); Annales, 1883, 242 (id.).
 WILLISTON, Synop. N. A. Syrph., 183, 295, def. and table of species, 1886.
 VERRALL, Brit. Flies, VIII, 523, 1901.
 CHAGNON, Ét. Prélim. les Syrph., 56, 1901.
aureopilis TOWNSEND, see *lætus*.
androclus WALKER, List, III, 612 (*Eristalis*).—Martin Falls, Canada.
 OSTEN SACKEN, Cat., 250, note on type.
bilinearis WILLISTON, Synop. N. A. Syrph., 295.—Col.
 Montreal—Chagnon.
borealis STÆGER, Kroyer's Tidsk., N. R., I, 359.—Greenland.
 LOEW, Stett. Ent. Zeit., VI, 123, 1843.
 WILLISTON, Synop. N. A. Syrph., 185, transl. Loew's desc.
chalepus WALKER, Dipt. Saund., 247 (*Eristalis*).—Canada.
 OSTEN SACKEN, Cat., 250, note on type.
chrysostoma WIEDEMANN, Auss. Zweifl., II, 174 (*Eristalis*).—Ga.
 WILLISTON, Synop. N. A. Syrph., 190, pl. VIII, f. 5.—New Eng., N. Y.
 N. J.—Smith Cat.; Montreal—Chagnon.
conostoma WILLISTON, Synop. N. A. Dipt., 193, pl. VIII, f. 3.—Conn.
 OSTEN SACKEN, Cat., 134 (*lineatus* FAB.).—Mass., Ill., Canada.
 ? WALKER, List, III, 603 (*anausis*).—Martin Falls, Canada.
 CHAGNON, Ét. Prélim. les Syrph., 57.—Rigaud and Levis, Quebec.
 N. J.—Smith Cat.; Sea Cliff, L. I.—Banks.
Note.—Walker's name is prior, but in this difficult group there is too much uncertainty to justify changing the name at present.
distinctus WILLISTON, Synop. N. A. Syrph., 192.—Conn., Va., Pa.
 N. J.—Smith Cat.
divisus LOEW, Cent., IV, 78.—D. C.
 WILLISTON, Synop. N. A. Syrph., 195, transl. orig. desc.
 HUNTER, Canad. Ent., XXIX, 138, 140, male.—N. J.
 N. J.—Smith Cat.; Orlando, Fla.—Johnson.
dychei WILLISTON, in Hunter's article, Canad. Ent., XXIX, 136.—Sitka.
 Alaska—Coquillett; N. M.—Coquillett.
flavifacies BIGOT, Annales, 1883, 344.—Md.
 WILLISTON, Synop. N. A. Syrph., 197, quotes desc.
 HUNTER, Canad. Ent., XXIX, 139, quotes part of desc.
formalis WALKER, List, III, 603.—Mex.
frater WALKER, List, III, 613 (*Eristalis*).—Martin Falls, Canada.
 OSTEN SACKEN, Cat., 250, note on type.
glacialis LOEW, Stett. Ent. Zeit., 1843, 120.—Labrador.
 WILLISTON, Synop. N. A. Syrph., 184, transl. orig. desc.

- grœnlandicus** O. FABRICIUS, Fauna Grœnl., 208 (*Tabanus*).—Greenland.
ZETTERSTEDT, Ins. Lapp., 595 (*arcticus*); Dipt. Scand., II, 678 (id.).—Europe.
STÆGER, Kroyer's Tidskr., N. R., I, 359 (*arcticus*), oc. in Greenland.
LOEW, Stett. Ent. Zeit., VI, 119.
CURTIS, Ins. of Ross' Exped., LXXVII (*bilineata*). [Schödte.]
? WALKER, List, III, 607 (*latro*).—Martin Falls and Nova Scotia. [O. S., with a doubt.]
WILLISTON, Synop. N. A. Syrph., 185.—Greenland, Lapland.
LUNDBECK, Ent. Unters. i West-Grœnl., Heft VII, pl. VII, f. 17: Dipt. Grœnl., I, 304, bibl., etc.—Greenland.
- hamatus** LOEW, Cent., IV, 79.—Huds. B. Terr.
WILLISTON, Synop. N. A. Syrph., 195, transl. orig. desc.
N. J.—Smith Cat.
- hybridus** LOEW, Stett. Ent. Zeit., VII, 141.—Europe.
SCHINER, Fauna Austr., I, 339.
MACQUART, Dipt. Exot., Suppl. II, 60 (*novæ-scotiæ*).—Nova Scotia. [Verrall, from type.]
WILLISTON, Synop. N. A. Syrph., 197, quotes Macq.
VERRALL, Brit. Flies, VIII, 529, full discussion.—England.
- integer** LOEW, Cent., IV, 76.—N. Y.
WILLISTON, Synop. N. A. Syrph., 195, transl. orig. desc.
HUNTER, Canad. Ent., XXIX, 139.—N. J.
N. J.—Smith Cat.
- lætus** LOEW, Cent., IV, 77.—N. Y., Wis.
WILLISTON, Synop. N. A. Syrph., 189, pl. VIII, f. 6.—Conn., N. Y.
TOWNSEND, Trans. Amer. Ent. Soc., XXII, 51 (*aureopilis*).—Constantine, Mich.
HUNTER, Canad. Ent., XXIX, 139, syn.
- ✓ **latifrons** LOEW, Cent., IV, 73.—Nebr.
OSTEN SACKEN, West. Dipt., 337, notes.—Sonoma Co., Cal.: Red R. of the North.
WILLISTON, Synop. N. A. Syrph., 188.—Mass. to Cal. and Wash.
WILLISTON, Biologia, Dipt., III, 68, oc. in Guerrero, Mex.
LINTNER, 7th N. Y. Rept., 228, 234, life hist., bibl., etc.—N. Y.; this is the *H. similis* of the 2d Rept.
HUNTER, Canad. Ent., XXIX, 138, oc. at Cook's Inlet, Alaska.
CHAGNON, Ét. Prélim. les Syrph., 59.—Montreal.
N. J.—Smith Cat.
- latitarsis** HUNTER, Canad. Ent., XXIX, 134.—Minn.
- lineatus** FABRICIUS; see *conostoma* for the species thus identified by Osten Sacken.
- lunulatus** MEIGEN, Syst. Besch., III, 370.—Europe.
SCHINER, Fauna Austr., I, 340.
COQUILLET, Proc. Wash. Acad. Sci., II, 436, oc. in N. A.—Alaska.
VERRALL, Brit. Flies, VIII, 540, fig.
- mexicanus** MACQUART, see *Ascemosyrphus*.
- modestus** WILLISTON, Synop. N. A. Syrph., 192, pl. VIII, f. 4.—Wyo.
- novæ-scotiæ** MACQUART, see *hybridus*.
- obscurus** LOEW, Cent., IV, 74.—Col.
WILLISTON, Synop. N. A. Syrph., 196, transl. and notes.
- obsoletus** LOEW, Cent., IV, 75.—Fort Resolution, Huds. B. Terr.
WILLISTON, Synop. N. A. Syrph., 196, transl. orig. desc.

pilosus HUNTER, Canad. Ent., XXIX, 137.—Brit. Col.

polygrammus LOEW, see *Asemosyrphus mexicanus*.

porcus WALKER, List, III, 551.—Martin Falls, Canada.

OSTEN SACKEN, Cat., 250, note on type.

WILLISTON, Synop. N. A. Syrph., 197, quotes both.

similis MACQUART, Dipt. Exot., II, 2, 64.—Ga.

WALKER, List, III, 605 and 614 (*fasciatus* and *Eristalis decisis*).—Martin Falls, Canada; Trenton Falls, N. Y.

JÆNNICKE, Neue Exot., Dipt., 94 (*susurrans*).—Ill.

OSTEN SACKEN, Cat., 134 and 250, note, syn.

WILLISTON, Synop. N. A. Syrph., 189, pl. VIII, f. 2.—New England and Canada to Cal.

CHAGNON, Ét. Prélim. les Syrph., 58.—Montreal.

N. J.—Smith Cat.; Fla.—Johnson.

stipatus WALKER, List, III, 602.—Trenton Falls, N. Y.

OSTEN SACKEN, Cat., 250, note; probably same as *conostoma*.

trivittatus FABRICIUS, Syst. Antl., 234 (*Eristalis*).—Europe.

MEIGEN, Syst. Besch., III, 373.

MACQUART, Hist. Nat. Dipt., I, 510.

ZETTERSTEDT, Dipt. Scand., II, 679.

LOEW, Stett. Ent. Zeit., VII, 142.

SCHINER, Fauna Austr., I, 340.

BIGOT, Annales, 1880, 141, oc. in Persia.

GIGLIO-TOS, Ditt. del Mess., II, 18, bibl. and oc. in Mexico City.

ASEMOSYRPHUS.

BIGOT, Bull. Soc. Ent. France, 1882, cxxviii; Annales, 1883, 228.

GIGLIO-TOS, Ditt. del Mess., II, 18, 1893.

bicolor BIGOT, Bull. Soc. Ent. France, 1882; Annales, 1883, 350.—Mex.

GIGLIO-TOS, Boll. R. Univ. Torino, VII, No. 123, 1892 (*impurus* and *olivaceus*); Ditt. del Mess., II, 19.—Mexico, several places.

mexicanus MACQUART, Dipt. Exot., II, 2, 64, pl. XI, f. 2 (*Helophilus*).—Mex.

LOEW, Cent., X, 55 (*Helophilus polygrammus*).—Cal. [Will.]

OSTEN SACKEN, West. Dipt., 338 (id.), note on male.—Sierra Co., Cal.; Ore.

BIGOT, Bull. Soc. Ent. France, 1882 (*oculiferus*, *nigroscutatus*, and *flavicaudatus*); Annales, 1883, 350, 351 (id.).—Mex. [Will.]

WILLISTON, Synop. N. A. Syrph., 186, pl. VIII, f. 7 (*Helophilus*); Biologia, Dipt., III, 68 (id.).—Wash., Cal.; Mexico, several places.

HUNTER, Canad. Ent., XXIX, 137 (id.), oc. in S. D.

GIGLIO-TOS, Boll. R. Univ. Torino, VII, No. 123, 1892 (*griseus*); Ditt. del Mess., II, 20, syn., etc.—Mexico, various places.

MALLOTA.

MEIGEN, Syst. Besch., III, 337, 1822.

MACQUART, Dipt. Exot., II, 2, 67, 1842 (*Imatisma*).

SCHINER, Fauna Austr., I, 342, 1862.

WILLISTON, Synop. N. A. Syrph., 201, def. and table of species, 1886.

VERRALL, Brit. Flies, VIII, 551, 1901.

CHAGNON, Ét. Prélim. les Syrph., 55, 1901.

albipilis SNOW, Kans. Univ. Quart., III, 244.—N. M.

bipartita WALKER, List, III, 599 (*Merodon*).—Ga.

- OSTEN SACKEN, Cat., 250, note on types.
- WILLISTON, Synop. N. A. Syrph., 205, quotes desc.
- cimbiciformis** FALLÉN, Syrphici, 27 (*Syrphus*).—Europe.
- MEIGEN, Syst. Besch., III, 385 (*Eristalis*).
- MACQUART, Dipt. Exot., II, 2, 68, pl. XII, f. 2 (*Imatisma posticata*, female).—Carolina, Philadelphia.
- ZETTERSTEDT, Dipt. Scand., II, 663; XII, 4652.
- WALKER, List, III, 600 (*Merodon bautias*).—Ga.
- LOEW, Neue Beitr., IV, 17, 43 (*cristaloides*); Silliman's Jour., OC. in N. A.
- RONDANI, Dipt. Ital. Prod., II, 34 (*Zetterstedtia*).
- SCHINER, Verh. Zool.-Bot. Ges., VII, 402 (*cristaloides*); Fauna Austr., I, 343 (id.).
- OSTEN SACKEN, Cat., 250, note on type of *bautias*.
- LINTNER, 1st N. Y. Rept., 211 (*dentipes* WILL.).
- KARSCH, Berl. Ent. Zeitsch., XXVII, 172, 1883 (*bautias* and *atrox*).
- WILLISTON, Berl. Ent. Zeitsch., XXVII, 171, 1883; Synop. N. A. Syrph., 202, pl. VIII, f. 11 and pl. IX, f. 8.—Canada and New Hampshire to Ga.
- HUNTER, Canad. Ent., XXVIII, 99.—Nebr.; *sackeni* is quite likely a syn.
- VERRALL, Brit. Flies, VIII, 552, fig.
- CHAGNON, Ét. Prélim. les Syrph., 56.—Montreal.
- Inverness, Fla.—Johnson; N. J.—Smith Cat.; Sea Cliff, L. I.—Banks; Axton, N. Y.—M. and H.
- ? **championi** WILLISTON, Biologia, Dipt., III, 69.—Guerrero, Mex. Query by Will.
- facialis** HUNTER, Canad. Ent., XXVIII, 100.—Nebr.
- illinoisensis** ROBERTSON, Canad. Ent., XXXIII, 284.—Carlville, Ill.
- margarita** WILLISTON, Biologia, Dipt., III, 70, pl. II, f. 7.—Guerrero, Mex.
- posticata** FABRICIUS, Syst. Antl., 237 (*Eristalis*).—Carolina.
- SAY, Jour. Acad. Sci. Phil., VI, 163 (*Milesia bardus*); Compl. Works, II, 357 (id.).—Ind.; the female here referred to belongs in *cimbiciformis*.
- WIEDEMANN, Auss. Zweifl., II, 165, 194 (*Eristalis coactus* and *posticatus*).—No. loc.; Carolina.
- MACQUART, Dipt. Exot., II, 2, 68 (*Imatisma posticata*; male only—the female is *cimbiciformis*).—Carolina, Philadelphia.
- WALKER, List, III, 600 (*Merodon balanus*).—N. Y. [O. S.]
- PACKARD, Guide to Study of Ins., 399, f. 319 (*Merodon bardus*); Amer. Nat., II, Jan., 1869, 593 (id.).
- GLOVER, MS. Notes, Dipt., 1874, 32, pl. VIII, f. 30 (*Merodon bardus*).
- LINTNER, 1st N. Y. Report, 211, life hist., figs., etc.; the rat-tailed larvæ were found in decaying trees.—N. Y.
- WILLISTON, Berl. Ent. Zeitsch., XXVII, 170, syn.; Synop. N. A. Syrph., 201, pl. VIII, f. 13.—New Eng., Canada, N. Y., Kans.
- BIGOT, Annales, 1883, 227, notes.
- VERRALL, Brit. Flies, VIII, 554, notes; does not occur in Europe.
- CHAGNON, Ét. Prélim. les Syrph., 55.—Montreal.
- N. J.—Smith Cat.; White Mts., N. H.—Slosson; Sea Cliff, N. Y.—Banks; Axton, N. Y.—M. and H.
- sackeni** WILLISTON, Proc. Amer. Phil. Soc., XX, 324; Synop. N. A. Syrph., 204, pl. VIII, f. 14; Biologia, Dipt., III, 70, OC.—Wash., Tex.; Guanajuato, Mex.
- OSTEN SACKEN, West. Dipt., 338 (*posticata*).—San Rafael, Cal.
- This may still be only a synonym of *posticata*.—J. M. A.
- smithi** WILLISTON, Biologia, Dipt., III, 70, pl. II, f. 8.—Guerrero, Mex.

MERODON.

- MEIGEN, Illig. Mag., II, 274, 1803; Syst. Besch., III, 349, 1822.
 SCHINER, Fauna Austr., I, 343, 1862.
 VERRALL, Brit. Flies, VIII, 555, 1901.
equestris FABRICIUS, Ent. Syst., IV, 292 (*Syrphus equestris* and *flavicans*); Syst. Antl., 196, 239, 240 (*Merodon equestris*, *Eristalis narcissi* and *ferrugineus*).—Europe; larvæ in bulbs of *Narcissus*, etc.
 MEIGEN, Syst. Besch., III, 352–354 (*equestris*, *transversalis*, *constans*, and *nobilis*).
 RONDANI, Nuovi ann. di Bologna, II, 4, 254 (*tuberculatus* and *bulborum*).
 SCHINER, Fauna Austr., I, 344.
 OSTEN SACKEN, Cat., 135, note on occasional importation of larvæ in bulbs from Europe.
 VERRALL, Brit. Flies, VIII, 556, figs.
 Montreal—Johnson in litt.

TRIODONTA.

- WILLISTON, Bull. Brooklyn Ent. Soc., VII, 136, 1885; Synop. N. A. Syrph., 205, 1886.
 MACQUART, Dipt. Exot., Suppl. IV, 144, 1850 (*Polydonta*, preoc.).
curvipes WIEDEMANN, Auss. Zweifl., II, 149 (*Merodon*).—N. A.
 MACQUART, Dipt. Exot., Suppl. I, 132, pl. II, f. 7 (*Helophilus albiceps*), female; Suppl. IV, 144, pl. XIII, f. 6 (*Polydonta bicolor*), male.—Both Nova Scotia.
 WALKER, List, III, 599 (*Merodon morosus*).—Nova Scotia.
 OSTEN SACKEN, West. Dipt., 338, notes (*Polydonta*); Cat., 135, syn.
 WILLISTON, Synop. N. A. Syrph., 206, pl. IX, f. I.—New Eng., Cal., Col. N. J.—Smith Cat.; Sea Cliff, L. I.—Banks.

TEUCHOCNEMIS.

- OSTEN SACKEN, Bull. Buff. Soc. Nat. Sci., III, 58, 1876; Cat., 250, 1878, desc. quoted.
 WILLISTON, Synop. N. A. Syrph., 199, 1886.
 CHAGNON, Ét. Prélim. les Syrph., 54, 1901.
bacantius WALKER, List, III, 563 (*Milesia*).—Ga.
 OSTEN SACKEN, Bull. Buff. Soc. Nat. Sci., III, 58; Cat., 250, notes on genus.
 WILLISTON, Synop. N. A. Syrph., 200, pl. VII, f. 6.—Ga., Tex.
 N. J.—Smith Cat.
lituratus LOEW, Cent., IV, 81 (*Pterallastes*).—Pa.
 OSTEN SACKEN, Bull. Buff. Soc. Nat. Sci., III, 58; Cat., 250, notes.
 WILLISTON, Synop. N. A. Syrph., 200, pl. VIII, f. 12.—Pa., Conn., Mo.
 CHAGNON, Ét. Prélim. les Syrph., 54.—Rigaud, Quebec.

PTERALLASTES.

- LOEW, Cent., IV, 80, 1863.
 WILLISTON, Synop. N. A. Syrph., 198, 1886.
perfidiosus HUNTER, Canad. Ent., XXIX, 139, fig.—Br. Col.
thoracicus LOEW, Cent., IV, 80.—Pa.
 WILLISTON, Synop. N. A. Syrph., 198, pl. VIII, f. 9.—Pa.
 N. J.—Smith Cat.; Sea Cliff, L. I.—Banks.

SENOGASTER.

MACQUART, Hist. Nat. Dipt., I, 519, 1834; Dipt. Exot., II, 2, 72, 1842.

BIGOT, Bull. Soc. Ent. France, 1878, 131 (*Acrochordonodes*).

WILLISTON, Synop. N. A. Syrph., 238, 1886.

comstocki WILLISTON, Proc. Amer. Phil. Soc., XX, 326; Synop. N. A. Syrph., 239, pl. XI, f. I.—N. Y.

SYRITTA.

ST. FARGEAU et SERVILLE, Encycl. Méth., X, 808, 1825.

MACQUART, Hist. Nat. Dipt., I, 525, 1834.

MEIGEN, Syst. Besch., VII, 113, 1838.

ZETTERSTEDT, Ins. Lapp., 584, 1838 (*Coprina*); Dipt. Scand., II, 881, 1843.

WALKER, Ins. Brit., Dipt., I, 253, 1851.

RONDANI, Arch. Zool., III, 9 (*Planes*).

SCHINER, Fauna Austr., I, 357, 1862.

WILLISTON, Synop. N. A. Syrph., 239, 1886.

VERRALL, Brit. Flies, VIII, 611, 1901.

CHAGNON, Ét. Prélim. les Syrph., 61, 1901.

pipiens LINNÉ, Syst. Nat., 10th ed., 594 (*Musca*); Fauna Suec., 2d ed., 450 (id.).—Europe.

DEGEER, Ins., VI, 120. pl. VII, f. 8, 9 (id.).

SCOPOLI, Ent. Carniol., No. 969 (*Conops*).

FABRICIUS, Spec. Ins., II, 434 (*Syrphus*); Ent. Syst., IV, 310 (id.); Syst. Antl., 194 (*Milesia*).—Europe.

LATREILLE, Consid. Génér., 443 (id.).

FALLÉN, Syrphici, 12 (id.).

MEIGEN, Syst. Besch., III, 213 (*Xylota*); VII, 113, pl. LXVII, f. 21.

SAY, Amer. Ent., I, 16, pl. VIII, f. 3 (*Xylota proxima*); Compl. Works, I, 16 (id.).—Phil., Va.

WIEDEMANN, Auss. Zweifl., II, 102 (id.).

ZETTERSTEDT, Ins. Lapp., 584 (*Coprina*); Dipt. Scand., II, 881; XII, 4675.

SCHINER, Verh. Zool.-Bot. Ges., VII, 424; Fauna Austr., I, 358.

WILLISTON, Synop. N. A. Syrph., 240.—U. S.; common everywhere.

HOWARD, Proc. Wash. Acad. Sci., II, 597, notes; said to have been reared from horse and cow dung.

VERRALL, Brit. Flies, VIII, 612, figs.

CHAGNON, Ét. Prélim. les Syrph., 61.—Montreal.

"Everywhere and at all times abundant from spring to autumn"—Will.

vagens WIEDEMANN, Auss. Zweifl., II, 101.—Brazil.

RONDANI, Archiv. Zool., III, 9 (*Planes*).

SCHINER, Novara, 367 (*americana*).—S. A.

BIGOT, Annales, 1883, 539 (*mexicana*).—Mex.

WILLISTON, Trans. Amer. Ent. Soc., XV, 285 (*americana*); Biologia, Dipt., III, 73.—Brazil; Vera Cruz and Costa Rica.

XYLOTA.

MEIGEN, Syst. Besch., III, 211, 1822.

SCHINER, Fauna Austr., I, 354, 1862.

WILLISTON, Synop. N. A. Syrph., 224, 1886, def. and table of species; Biologia, Dipt., III, 71, 1891, table of Central Amer. species.

VERRALL, Brit. Flies, VIII, 596, 1901.

CHAGNON, Ét. Prélim. les Syrph., 62, 1901.

æpalius WALKER, see *Brachypalpus sorosis*.

- analis** WILLISTON, Synop. N. A. Syrph., 226.—Cal., N. M.
HUNTER, Canad. Ent., xxviii, 100, notes on antennæ, etc.—Nebr.
N. J.—Smith Cat.
- angustiventris** LOEW, Cent., vi, 58.—Ill.
WILLISTON, Synop. N. A. Syrph., 231 and 234 (*angustiventris* and *elongata*).—N. H., N. Y., Pa. [Will.]
HUNTER, Canad. Ent., xxviii, 101, notes.—Nebr.
CHAGNON, Ét. Prélim. les Syrph., 64.—St. Hilaire, Quebec.
N. J.—Smith Cat.
- annulifera** BIGOT, see *cjuncida*.
- anthreas** WALKER, List, iii, 556.—Trenton Falls, N. Y.
WILLISTON, Synop. N. A. Syrph., 235.—N. H.
N. J.—Smith Cat.; Montreal—Chagnon.
- arcuata** SAY, Jour. Acad. Sci. Phil., vi, 162; Compl. Works, ii, 357.—Mex.
- barbata** LOEW, Cent., v, 40.—Sitka.
WILLISTON, Synop. N. A. Syrph., 233.—Ore., Wash., Cal.
COQUILLET, Proc. Wash. Acad. Sci., ii, 437, oc. in Alaska.
HUNTER, Canad. Ent., xxix, 101, notes.—Cal.
- bicolor** LOEW, Cent., v, 39.—Ill.
WILLISTON, Synop. N. A. Syrph., 229.—Pa.
N. J.—Smith Cat.
- brachygaster** WILLISTON, Biologia, Dipt., iii, 72.—Guerrero, Mex.
- chalybea** WIEDEMANN, Auss. Zweifl., ii, 98.—No locality.
WILLISTON, Synop. N. A. Syrph., 233.—Pa., Va., Ill.
TOWNSEND, Trans. Amer. Ent. Soc., xxii, 53, oc. in D. C.
N. J.—Smith Cat.
- coloradensis** BIGOT, Annales, 1884, 544.—Col.
WILLISTON, Synop. N. A. Syrph., 236, quotes desc.
- communis** WALKER, List, iii, 557.—Martin Falls, Canada.
- curvipes** LOEW, Neue Beiträge, ii, 19.—Central Europe.
SCHINER, Fauna Austr., i, 355.
OSTEN SACKEN, Bull. Buff. Soc. Nat. Sci., iii, 70; Cat., 252.
? BIGOT, Annales, 1884, 546 (*satanica*).—Cal. [Will., with a query.]
WILLISTON, Synop. N. A. Syrph., 232.—N. H., N. Y., Minn., Cal.
CHAGNON, Ét. Prélim. les Syrph., 63.—Ottawa, Canada.
White Mts., N. H.—Slosson; Montreal—Chagnon; Axton, N. Y.—M. and H.
- ejuncida** SAY, Amer. Entomol., i, pl. viii; Compl. Works, i, 15.—E. Fla. and Philadelphia.
WIEDEMANN, Auss. Zweifl., ii, 100.
OSTEN SACKEN, Cat., 252, note.
BIGOT, Annales, 1884, 545 (*annulifera*).—N. A. [Will.]
WILLISTON, Synop. N. A. Syrph., 229, pl. xi, f. 8.—U. S. generally.
HUNTER, Canad. Ent., xxix, 143, oc. at Cook's Inlet, Alaska.
CHAGNON, Ét. Prélim. les Syrph., 64.—St. Jean and St. Hilaire, Quebec.
N. J.—Smith Cat.; Fla., Johnson; Axton, N. Y.—M. and H.
See *quadrinaculata*.
- elongata** WILLISTON, see *angustiventris*.
- flavifrons** WALKER, List, iii, 537.—Martin Falls, Canada.
WILLISTON, Synop. N. A. Syrph., 234, note.
- flavitibia** BIGOT, Annales, 1884, 546.—Cal.
WILLISTON, Proc. Amer. Phil. Soc., xx, 327 (*Xylota*, n. sp.); Synopsis
N. A. Syrph., 228, pl. xi, f. 6.—Col.

- HUNTER, Canad. Ent., xxviii, 101, oc. in Nebr.
 TOWNSEND, Trans. Amer. Ent. Soc., xxii, 53, oc. in D. C.
 Beulah, N. M.—Skinner.
- fraudulosa** LOEW, Cent., v, 41.—Ill., Wis.
 WILLISTON, Synop. N. A. Syrph., 230.—N. Y., N. H., Wash.
 HUNTER, Canad. Ent., xxviii, 101, oc. in Nebr.
 White Mts., N. H.—O. S. Cat.
- libo** WALKER, List, iii, 556.—Nova Scotia.
- marginalis** WILLISTON, Synop. N. A. Syrph., 226.—White Mts., N. H.; may not be distinct from *libo*.
 Axton, N. Y.—M. and H.
- metallica** WIEDEMANN, Auss. Zweifl., ii, 102.—Ga.
 WILLISTON, Synop. N. A. Syrph., 235, orig. desc., transl., and note.
- metallifera** BIGOT, Annales, 1884, 545.—Col.
 WILLISTON, Synop. N. A. Syrph., 236, quotes desc.
- nemorum** FABRICIUS, Syst. Antl., 192 (*Milesia*).—Europe.
 FALLÉN, Syrphici, ii (id.).
 MEIGEN, Syst. Besch., iii, 219.
 MACQUART, Hist. Nat. Dipt., i, 521.
 ZETTERSTEDT, Dipt. Scand., ii, 871.
 SCHINER, Fauna Austr., i, 356.
 VAN DER WULP, Tijdschr. v. Ent., xxvi, 8, oc. in N. A.—Quebec.
 WILLISTON, Synop. N. A. Syrph., 231, notes.
 VERRALL, Brit. Flies, viii, 604, 676, oc. in America requires investigation.
 Montreal—Chagnon.
- notha** WILLISTON, Synop. N. A. Syrph., 228.—Col.
 Beulah, N. M.—Skinner.
- obscura** LOEW, Cent., vi, 55.—Red R. of the North.
 WILLISTON, Synop. N. A. Syrph., 233.—Ore., Cal.
 HUNTER, Canad. Ent., xxviii, 101, oc. in Nebr.
- pachymera** LOEW, Cent., vi, 54.—Cuba.
 WILLISTON, Synop. N. A. Syrph., 237, transl. orig. desc.
 Porto Rico—Roeder.
- pauilla** WILLISTON, Biologia, Dipt., iii, 71, pl. ii, f. 9.—Guerrero, Mex.
- pigra** FABRICIUS, Ent. Syst., iv, 295 (*Syrphus*); Syst. Antl., 192, 193 (*Milesia pigra* and *hamatodes*).—Germany; Carolina.
 LATREILLE, Gen. Crust., iv, 331 (*Milesia*).
 MEIGEN, Syst. Besch., iii, 221.
 SAY, Amer. Ent., i, pl. viii (*hamatodes*); Compl. Works, i, 16 (id.).—E. Fla.
 WIEDEMANN, Auss. Zweifl., ii, 99 (id.).
 MACQUART, Dipt. Exot., ii, 2, 73, pl. xiii, f. 4 (id.).—N. A.
 ZETTERSTEDT, Dipt. Scand., ii, 878; viii, 3192.
 WAHLBERG, Acta Holmiæ, 1838, 15 (*crassipes*).
 LOEW, in Silliman's Jour., oc. in N. A.
 WILLISTON, Synop. N. A. Syrph., 227, pl. xi, f. 7.—Atlantic and Pacific States.
 TOWNSEND, Trans. Amer. Ent. Soc., xxii, 53, note.—D. C.
 CHAGNON, Ét. Prélim. les Syrph., 63.—Ottawa and Montreal.
 DÄCKE, Ent. News, xiv, 275, reared from larvæ under bark of a pine tree.
 Fla.—Johnson; N. J.—Smith Cat.; Beulah, N. M.—Skinner.
 See *rubiginigaster*.

pretiosa LOEW, Wien. Ent. Monatsch., i, 39; Cent., vi, 53.—Cuba.

WILLISTON, Synop. N. A. Syrph., 237, quotes desc.

quadrinaculata LOEW, Cent., vi, 56.—Ill.

WILLISTON, Synop. N. A. Syrph., 229, probably not distinct from *ejuncida*.
rubiginigaster BIGOT, Annales, 1884, 544.—Col.

WILLISTON, Synop. N. A. Syrph., 227, probably teneral form of *pigra*.

rufipes WILLISTON, Biologia, Dipt., iii, 71.—Guerrero, Mex.

satanica BIGOT, see *curvipes*.

stenogaster WILLISTON, Biologia, Dipt., iii, 72.—Guerrero, Mex.; Guatemala.

subcostalis WALKER, Trans. Ent. Soc., n. ser., v, 291.—Mex.

subfasciata LOEW, Cent., vi, 57.—Red R. of the North.

WILLISTON, Synop. N. A. Syrph., 230, transl. orig. desc.

? *tuberans* WILLISTON, Synop. N. A. Syrph., 225.—Texas. Query by Will.

vecors OSTEN SACKEN, Bull. Buff. Soc. Nat. Sci., iii, 69; Cat., 252.—White Mts., N. H.

WILLISTON, Synop. N. A. Syrph., 232, quotes Osten Sacken.

CHAGNON, Ét. Prélim. les Syrph., 63.—Montreal.

CERIOGASTER.

WILLISTON, Trans. Amer. Ent. Soc., xv, 285, 1888; Biologia, Dipt., iii, 73, 1891.

auricaudata WILLISTON, Biologia, Dipt., iii, 73, pl. ii, f. 10.—Guerrero, Mex.

CHRYSOCHLAMYS.

RONDANI, in Walker's Ins. Brit., Dipt., i, 279, 1851, change of name.

RONDANI, Ann. Sci. Nat. Bologna, 1844 (*Ferdinandea*); Dipt. Ital. Prod., ii, 145, 1857.

SCHINER, Fauna Austr., i, 363, 1862.

WILLISTON, Synop. N. A. Syrph., 240, def. and table of species, 1886.

VERRALL, Brit. Flies, viii, 623, 1901.

buccata LOEW, Cent., iv, 72.—Va.

WILLISTON, Synop. N. A. Syrph., 242, transl. orig. desc.

cræsus OSTEN SACKEN, West. Dipt., 341.—Utah, Salt Lake City.

WILLISTON, Synop. N. A. Syrph., 241.—Cal., Wash., N. M.

SNOW, Kans. Univ. Quart., iii, 245.—Col., N. M.

TOWNSEND, Psyche, March, 1897, oc.; Annals and Mag. Nat. Hist., xix, 142, oc.—Gila R., N. M.; Rio Ruidosa, N. M.

dives OSTEN SACKEN, West. Dipt., 340.—Ky.

WILLISTON, Synop. N. A. Syrph., 241, pl. xi, f. 5.—Ill., Mo., Canada.

N. J.—Smith Cat.

nigripes OSTEN SACKEN, West. Dipt., 341.—Mass.

WILLISTON, Synop. N. A. Syrph., 242, quotes desc.

? White Mts., N. H.—Slosson (*nigriceps*, probably an error).

BRACHYPALPUS.

MACQUART, Hist. Nat. Dipt., i, 523, 1834.

SCHINER, Fauna Austr., i, 353, 1862.

WILLISTON, Synop. N. A. Syrph., 221, def. and table of species, 1886.

VERRALL, Brit. Flies, viii, 592, 1901.

CHAGNON, Ét. Prélim. les Syrph., 64, 1901.

amithaon WALKER, List, iii, 567 (*Milcsia*).—N. C.

OSTEN SACKEN, Cat., 251, note on type.

WILLISTON, Synop. N. A. Syrph., 297, quotes desc.; note, not seen.

frontosus LOEW, Cent., x, 50.—D. C.

? WALKER, List, III, 558 (*Xylota oarus*).—Trenton Falls, N. Y. [O. S., with a doubt.]

WILLISTON, Synop. N. A. Syrph., 221, pl. x, f. 8.—D. C., Pa.

CHAGNON, Ét. Prélim. les Syrph., 65.—Rigaud and Montreal, Quebec.

N. J.—Smith Cat.

inarmatus HUNTER, Canad. Ent., XXIX, 142.—Vollmer, Idaho.

morrisoni BIGOT, see *Pocota grandis*.

parvus WILLISTON, Synop. N. A. Syrph., 222.—Col.

pulcher WILLISTON, Canad. Ent., XIV, 79; Synop. N. A. Syrph., 223, pl. x, f. 9.

—Ore., Wash.

BIGOT, Annales, 1883, 352 (*Calliprobola arca*).—Wash. [Will.]

rileyi WILLISTON, Synop. N. A. Syrph., 222.—N. C.

N. J.—Smith Cat.

sorosis WILLISTON, Synop. N. A. Syrph., 223, 297.—Ga.

? WALKER, List, III, 557 (*Xylota apalius*).—Ga. [Will., with a doubt.]

N. J.—Smith Cat.

verbosus HARRIS, of WALKER, see *Criorhina*.

POCOTA.

ST. FARGEAU et SERVILE, Encycl. Méth., x, 518, 1825.

SCHINER, Verh. Zool.-Bot. Ges., VII, 440; Fauna Austr., I, 351 (both *Plocota*).

EGGER, Verh. Zool.-Bot. Ges., VIII, 711 (*Dasymyia*).

WILLISTON, Canad. Ent., 1882, 78 (*Hadromyia*); Synop. N. A. Syrph., 220, 1886.

VERRALL, Brit. Flies, VIII, 586, 1901.

bomboides HUNTER, Canad. Ent., XXIX, 141.—Cal.

grandis WILLISTON, Canad. Ent., XIV, 79, female (*Hadromyia*); Synop. N. A. Syrph., 221, pl. x, f. 7.—Wash.

BIGOT, Annales, 1883, 355 (*Brachypalpus morrisoni*).—Wash. [Will.]

RILEY and HOWARD, Ins. Life, IV, 86, notes on the male.—Vancouver Id.

CRIOPRORA.

OSTEN SACKEN, Cat., 251, 1878.

BIGOT, Annales, 1883, 356 (*Romalcosyrphus*).

WILLISTON, Synop. N. A. Syrph., 217, 1886, def. and table of species; Biologia, Dipt., III, 72, 1891, syn.

alopex OSTEN SACKEN, West. Dipt., 338 (*Pocota*); Cat., 251, note.—Marin Co., Cal.

arctophiloides GIGLIO-TOS, Boll. R. Univ. Torino, VII, No. 123, 1892; Ditt. del Mess., II, 25, pl. II, f. 2.—Angang, Mex.

cyanella OSTEN SACKEN, West. Dipt., 339 (*Pocota*); Cat., 251, notes.—Santa Barbara, Cal.

WILLISTON, Synop. N. A. Syrph., 218, pl. x, f. 6.—Cal.

cyanogaster LOEW, Cent., x, 51 (*Brachypalpus*).—Pa.

WILLISTON, Synop. N. A. Syrph., 218.—Col.

Montreal—Chagnon.

femorata WILLISTON, Proc. Amer. Phil. Soc., XX, 329; Synop. N. A. Syrph., 219, pl. x, f. 5.—Ore., Wash.

villosa BIGOT, Bull. Soc. Ent. France, 1882 (*Romalcosyrphus*); Annales, 1883, 356 (id.).—Mex.

WILLISTON, Biologia, Dipt., III, 72, oc. in Mex., and gen. ref.

MERAPIOIDUS.

- BIGOT, Bull. Soc. Ent. France, 1879, 64.
 WILLISTON, Synop. N. A. Syrph., 243, 1886.
villosus BIGOT, Bull. Soc. Ent. France, 1879, 64.—N. A.
 WILLISTON, Synop. N. A. Syrph., 243, pl. XI, f. 2.—Ga.

CRIORHINA.

- MEIGEN, Syst. Besch., III, 236, 1822, subg. of *Milesia*.
 ST. FARGEAU et SERVILLE, Encycl. Méth., x, 518, 1825 (subg. of *Milesia*).
 MACQUART, Hist. Nat. Dipt., I, 497, 1834; Dipt. Exot., Suppl., II, 57, 1847 (*Somula*).
 SCHINER, Fauna Austr., I, 349, 1862.
 PHILIPPI, Verh. Zool.-Bot. Ges., xv, 736, 1865 (*Eriophora*).
 WILLISTON, Canad. Ent., XIV, 77, 1882 (*Brachymyia*).
 BIGOT, Bull. Soc. Ent. France, 1882, No. 6 (*Eurhinomallota*); Annales, 1883, 225, note.
 WILLISTON, Synop. N. A. Syrph., 209, 1886, distinguishes three subgenera—*Criorhina*, *Somula*, and *Cynorhina* (the last new).
 VERRALL, Brit. Flies, VIII, 576, 1901, makes *Cynorhina* a separate genus.
analis MACQUART, Dipt. Exot., II, 2, 79, pl. xv, f. 2 (*Milesia*).—N. A.
 WILLISTON, Proc. Amer. Phil. Soc., XX, 330, notes; Synop. N. A. Syrph., 214, pl. IX, f. 3.—Eastern States.
 N. J.—Smith Cat.; Montreal—Chagnon; Sea Cliff, L. I.—Banks.
armillata OSTEN SACKEN, Bull. Buff. Soc. Nat. Sci., III, 68; Cat., 251.—Quebec.
 WILLISTON, Synop. N. A. Syrph., 213, quotes desc.
 COQUILLETT, Proc. Wash. Acad. Sci., II, 436, oc. in Alaska, N. H., and Mont.
 White Mts., N. H.—Slosson.
badia WALKER, List, III, 559 (*Xylota*).—N. Y.
 OSTEN SACKEN, Cat., 253, probably is identical with *intersistens*.
coquilletti WILLISTON, Ent. News, III, 145.—S. Cal.
decora MACQUART, Dipt. Exot., Suppl. III, 57, pl. II, f. II (*Somula*).—Philadelphia.
 WILLISTON, Synop. N. A. Syrph., 216, pl. x, f. 3.—Conn., Mass., Pa.
 VAN DER WULP, Tijdschr. v. Ent., XXVII, 2, notes.—Conn.
 CHAGNON, Ét. Prélim. les Syrph., 66.—Montreal.
 N. J.—Smith Cat.; Sea Cliff, L. I.—Banks.
humeralis WILLISTON, Proc. Amer. Phil. Soc., XX, 330; Synop. N. A. Syrph., 214, pl. IX, f. 4.—Wash.; Cal.
intersistens WALKER, List, III, 615 (*Eristalis*).—Trenton Falls, N. Y.
 WILLISTON, Synop. N. A. Syrph., 212.—N. H., Pa., N. J., Minn.
 CHAGNON, Ét. Prélim. les Syrph., 65.—Montreal.
 N. J.—Smith Cat.; Axton, N. Y.—M. and H.
 See *badia*.
johnsoni COQUILLETT, Ent. News, v, 125.—Wash.
kincaidi COQUILLETT, Proc. U. S. N. M., XXIII, 611.—Seattle.
lupina WILLISTON, Canad. Ent., XIV, 77 (*Brachymyia*); Proc. Amer. Phil. Soc., XX, 330 (*Eurhinomallota*); Synop. N. A. Syrph., 211, pl. IX, f. 6.—Cal.
metallica BIGOT, Bull. Soc. Ent. France, 1882, 78 (*Eurhinomallota*).—Mex.
 WILLISTON, Synop. N. A. Syrph., 211, probably same as *lupina*.
nigripes WILLISTON, Canad. Ent., XIV, 78 (*Brachymyia*); Proc. Amer. Phil. Soc., XX, 330 (*Eurhinomallota*); Synop. N. A. Syrph., 210, pl. x, f. I.—Cal.
notata WIEDEMANN, Auss. Zweifl., II, 109 (*Milesia*).—Savannah, Ga.

- MACQUART, Dipt. Exot., II, 2, 80, pl. xv, f. 5 (id.).—Carolina and Georgia.
- WALKER, List, III, 578 (*Syrphus profusus*).—Ga. [O. S.]
- ? BIGOT, Annales, 1883, 354 (*Calliprobola pictipes*).—Carolina. [Will., with a doubt.]
- WILLISTON, Synop. N. A. Syrph., 215, transl. orig. desc.; see also p. 296.
- scitula** WILLISTON, Proc. Amer. Phil. Soc., XX, 331; Synop. N. A. Syrph., 215.—Wash.
- COQUILLETT, Proc. Wash. Acad. Sci., II, 436, oc. at Fox Point, Alaska, and in Oregon.
- tricolor** COQUILLETT, Proc. Wash. Acad. Sci., II, 436.—Sitka.
- umbratilis** WILLISTON, Synop. N. A. Syrph., 212, pl. IX, f. 7.—Conn.
- SNOW, Kans. Univ. Quart., I, 38, note.—Kans.
- HINE, Ohio Nat., II, 229, oc. in Cincinnati, O., and Nashville, Tenn.
- verbosa** WALKER, List, III, 568 (*"Milesia verbosa HARRIS, Cat. Ins. Mass."*).—N. A.
- OSTEN SACKEN, Cat., 136, ref. to *Brachypalpus*.
- SWEDERUS, Vetensk. Ak. Nya Handl., 1787 (*Musca tomentosa*).—N. A. [O. S.]
- WILLISTON, Synop. N. A. Syrph., 211, pl. x, f. 2.—Mass., Maine.
- HUNTER, Canad. Ent., XXIX, 141.—Minn.
- N. J.—Smith Cat.

MILESIA.

- LATREILLE, Hist. Nat. Crust. et Ins., XIV, 361, 1804.
- FALLÉN, Syrphici, 7, 1816.
- MEIGEN, Syst. Besch., III, 226, 1822.
- SCHINER, Fauna Austr., I, 366, 1862.
- WILLISTON, Synop. N. A. Syrph., 254, 1886.
- bella** TOWNSEND, Annals and Mag. Nat. Hist., XIX, 142.—Rio Ruidosa, N. M.
- HINE, Canad. Ent., XXXV, 246, notes.—Elden Mt., Ariz.
- ornata** FABRICIUS, see *virginicensis*.
- virginiensis** DRURY, Illust. Exot. Ent., App., II, pl. XXXVII, f. 6 (*Musca*).—Va.
- HAUSMAN, Ent. Bemerk., II, 67 (*Syrphus trifasciatus*). [Wied.]
- FABRICIUS, Syst. Antl., 188 (*ornata*).—Carolina. [Wied.]
- WIEDEMANN, Auss. Zweifl., II, 106 (*ornata*).—N. A.
- WESTWOOD, Drury's Exot. Ent., 2d ed., II, 77 (id.).
- BIGOT, Annales, 1884, 341 (*Sphyxæa fulvifrons*).—Ga. [Will.]
- WILLISTON, Synop. N. A. Syrph., 255, pl. XII, f. 2 (*ornata*).—New Eng., III., Md.
- N. J.—Smith Cat.; Fla., several places—Johnson.
- profusa** WALKER, List, III, 578 (*Syrphus*).—Ga.
- OSTEN SACKEN, Cat., 124, gen. ref.
- pulchra** WILLISTON, Biologia, Dipt., III, 74, pl. II, f. II.—Guatemala.

SPILOMYIA.

- MEIGEN, Illig. Mag., II, 273, 1803.
- MACQUART, Hist. Nat. Dipt., I, 491, 1834 (*Mixtemyia*).
- RONDANI, Dipt. Ital. Prod., I, 47, 1856 (*Calliprobola*).
- SCHINER, Fauna Austr., I, 364, 1862.
- WILLISTON, Synop. N. A. Syrph., 244, def. and table of species, 1886.
- CHAGNON, Ét. Prélim. les Syrph., 67, 1901.
- ærea** BIGOT, see *Brachypalpus pulcher*.
- calorhina** BIGOT, see *Sphecomyia pattoni*.

- ephippium** OSTEN SACKEN, Bull. Buff. Soc. Nat. Sci., III, 70; Cat., 254 (both *Mixtomyia*).—Mex.
 WILLISTON, Syno. N. A. Syrph., 249, quotes desc.; Biologia, Dipt., III, 74, oc. in Mex.
- fusca** LOEW, Cent., v, 34.—Pa.
 WILLISTON, Synop. N. A. Syrph., 246.—Pa., N. H., Ga., Mass., Canada.
 CHAGNON, Ét. Prélim. les Syrph., 68.—Rigaud and Montreal.
 N. J.—Smith Cat.; Adirondacks—Lintner.
- hamifera** LOEW, Cent., v, 33.—Pa.
 WILLISTON, Synop. N. A. Syrph., 247.—N. H.
 Va., Fla., Ky.—O. S. Cat.; St. Augustine and Inverness, Fla.—Johnson;
 N. J.—Smith Cat.
- interrupta** WILLISTON, Proc. Amer. Phil. Soc., xx, 327; Synop. N. A. Syrph., 246, pl. XII, f. 4.—Wash.
- kahlii** SNOW, Kans. Univ. Quart., III, 245.—N. M., 9,000 ft.
- liturata** WILLISTON, Synop. N. A. Syrph., 245.—N. M.
- longicornis** LOEW, Cent., x, 49.—Mass., Pa., Tex.
 WILLISTON, Synop. N. A. Syrph., 245.—Ill., Pa., D. C., New Eng.
 TOWNSEND, Trans. Amer. Ent. Soc., XXII, 54, notes.—Mich., Va.
 CHAGNON, Ét. Prélim. les Syrph., 69.—Montreal.
 N. J.—Smith Cat.; Kans., O. S. Cat.
- obscura** COQUILLET, Canad. Ent., 1902, 195.—Sierra Madre in Chihuahua, Mex.
- pallipes** BIGOT, Annales, 1883, 352.—Mex.
 WILLISTON, Biologia, Dipt., III, 74, oc.—Mex.
- pictipes** BIGOT, see *Criorhina notata*.
- pleuralis** WILLISTON, Synop. N. A. Syrph., 247.—Mex.
- quadrifasciata** SAY, Long's Exped. App., 377; Compl. Works, I, 257 (both *Paragus*).—N. W. Terr.
 WIEDEMANN, Auss. Zweifl., II, 91 (*Psarus*).—N. W. Terr.
 MACQUART, Hist. Nat. Dipt., I, 491, pl. XI, f. 8 (*Mixtomyia*).—Pa.
 OSTEN SACKEN, Cat., 139, oc. in Quebec, Mass., Conn., and White Mts., N. H.
 WILLISTON, Synop. N. A. Syrph., 248, pl. XII, f. 3.—N. Y.
 TOWNSEND, Trans. Amer. Ent. Soc., XXII, 54, oc. in Mich.
 HUNTER, Canad. Ent., XXVIII, oc. in Nebr.
 CHAGNON, Ét. Prélim. les Syrph., 67.—Montreal and St. Jean, Quebec.
 Kans.—SNOW.

SPHECOMYIA.

- LATREILLE, Dict. Class. d'Hist. Nat., xv, 545, 1829.
- GORSKI, Anal. Ent., 1852, I, 70 (*Tyzenhausia*).
- ZETTERSTEDT, Dipt. Scand., XII, 4645, 1855.
- RONDANI, Dipt. Ital. Prod., II, 185, 1857 (*Sphixca*).
- SCHINER, Fauna Austr., I, 367, 1862.
- OSTEN SACKEN, Cat., 254, 1878, historical sketch.
- WILLISTON, Synop. N. A. Syrph., 256, def. and table of species, 1886.
- CHAGNON, Ét. Prélim. les Syrph., 71, 1901.
- brevicornis** OSTEN SACKEN, West. Dipt., 341.—Webber L., Cal.
 WILLISTON, Synop. N. A. Syrph., 258, quotes Osten Sacken.
- fulvifrons** BIGOT, see *Milesia virginicensis*.
- pattoni** WILLISTON, Proc. Amer. Phil. Soc., xx, 328; Synop. N. A. Syrph., 258, pl. XII, f. 8.—Wash.
 BIGOT, Annales, 1884, 353 (*Calliprobola calorhina*).—Wash. [Will.]

vittata WIEDEMANN, Auss. Zweifl., II, 87 (*Chrysotoxum*); 91 (*Psarus ornatus*).
—No locality.

MACQUART, Hist. Nat. Dipt., I, 491 (*Psarus ornatus*); Dipt. Exot., II, 2, 18, pl. III, f. 3, syn. and brief desc.—Ga.

CUVIER, Règne Anim., XIV, 495.

GORSKI, Anallecta Ent., 1852, 170, pl. I, f. 1 (*Tyzenhausia vespiformis*).—Europe.

WAHLBERG, Oefv. Ak. Förh., XI, 156 (*Milesia vespiformis*).—Europe.

ZETTERSTEDT, Dipt. Scand., XII, 4646 (*vespiformis*).

SCHINER, Fauna Austr., I, 368 (id.).

ROEDER, Ent. Nachrichten, 1879, 96.

WILLISTON, Synop. N. A. Syrph., 257.—New Eng., So. States, Minn.

HUNTER, Canad. Ent., XXVIII, 101, oc.—Nebr.

CHAGNON, Ét. Prélim. les Syrph., 71.—Montreal.

Axton, N. Y.—M. and H.; N. J.—Smith Cat.

TEMNOSTOMA.

ST. FARGEAU et SERVILLE, Encycl. Méth., X, 518, 1825.

WILLISTON, Synop. N. A. Syrph., 249, 1886; ref. and table of species.

VERRALL, Brit. Flies, VIII, 628, 1901.

CHAGNON, Ét. Prélim. les Syrph., 69, 1901.

æqualis LOEW, Cent., V, 36.—English R., Huds. B. Terr.

WILLISTON, Synop. N. A. Syrph., 253.—New Eng., Col.

White Mts., N. H.—Slosson.

alternans LOEW, Cent., V, 37.—Philadelphia.

WILLISTON, Synop. N. A. Syrph., 252, pl. XII, f. 7.—Canada, Maine, N. H., Conn., Pa., Mass.

CHAGNON, Ét. Prélim. les Syrph., 70.—St. Hilaire and Montreal, Quebec.

White Mts., N. H.—Slosson; Axton, N. Y.—M. and H.

bombylans FABRICIUS, Syst. Antl., 189 (*Milesia*).—Europe.

PANZER, Fauna Germ., VIII, 11 (id.).

MEIGEN, Syst. Besch., III, 233 (id.).

MACQUART, Hist. Nat. Dipt., I, 534 (id.).

FALLÉN, Syrphici, 8 (*Milesia zetterstedtii*).

WALKER, List, III, 577 (*Doros balyras*).—Trenton Falls, N. Y. [Will.]

SCHINER, Fauna Austr., I, 365 (*Spilomyia*).

LOEW, Cent., V, 35 (*obscura*).—Saskatchewan R. [Will.]

WILLISTON, Synop. N. A. Syrph., 250, pl. XII, f. 6.—N. Y., Conn., White Mts., N. H., and Pa.

CHAGNON, Ét. Prélim. les Syrph., 70.—Montreal and St. Hilaire, Quebec.

White Mts., N. H.—Slosson; Axton, N. Y.—M. and H.

excentrica HARRIS, Ins. Inj. to Veg., 3d ed., 609 (*Milesia*).—Mass.

OSTEN SACKEN, ibidem, fig. 267; Cat., 253, note (the male only).

WILLISTON, Synop. N. A. Syrph., 251.—Mass., Tenn., Ill.

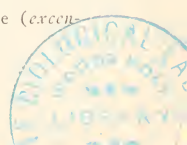
pictula WILLISTON, Synop. N. A. Syrph., 251.—Pa.

trifasciata ROBERTSON, Canad. Ent., XXXIII, 285.—Carlinville, Ill.

venusta WILLISTON, Synop. N. A. Syrph., 253.—White Mts., N. H.

OSTEN SACKEN, in Harris' Ins. Inj. to Veg., 610; Cat. 253, note (*excentrica*, the female).—Mass., L. Superior.

White Mts., N. H.—Slosson.



CERIA.

- FABRICIUS, Syst. Ent., iv, 277, 1774; Syst. Antl., 173, 1805.
 MEIGEN, Illig. Mag., ii, 271, 1803; Klassif., i, 281, 1804; Syst. Besch., iii, 158, 1822.
 LATREILLE, Hist. Nat. Crust. et Ins., xiv, 356, 1804; Gen. Crust., iv, 327, 1809.
 FALLÉN, Syrphici, 6, 1816.
 MACQUART, Hist. Nat. Dipt., i, 484, 1834.
 ZETTERSTEDT, Dipt. Scand., ii, 631, 1842.
 RONDANI, Ann. Soc. Ent. France, ser. 2, viii, 211, 212 (*Cerioides* and *Sphiximorpha*), 1850; Dipt. Ital. Prod., i, 55, 1856 (*Ceria* and *Sphiximorpha*); ii, 212, 214, 1857 (id.).
 LOEW, Neue Beitr., i, 1853.
 SCHINER, Fauna Austr., i, 368, 1862.
 WILLISTON, Synop. N. A. Syrph., 259, def. and table of species, 1886; Biologia, Dipt., iii, 75, 1891, table of Mex. species.
 VERRALL, Brit. Flies, viii, 664, 1901.
 CHAGNON, Ét. Prélim. les Syrph., 72, 1901.
abbreviata LOEW, Cent., v, 48; x, 57, note.—Pa., Fla.
 WILLISTON, Synop. N. A. Syrph., 261.—Conn., Va.
 TOWNSEND, Trans. Amer. Ent. Soc., xxii, 54, notes.—Col.
 N. Y.—O. S. Cat.; N. J.—Smith Cat.; Kans.—J. M. A.
ancoralis COQUILLETT, Canad. Ent., xxxiv, 196 (*Sphiximorpha*).—Las Cruces, N. M.
arietis LOEW, Neue Beitr., i, 17.—Mex.
 GIGLIO-TOS, Ditt. del Mess., i, 32.—Cordova, Mex.
bergrothi WILLISTON, Biologia, Dipt., iii, 77.—Vera Cruz, Mex.
cacica WALKER, Trans. Ent. Soc., n. ser., v, 287.—Mex.
daphnaea WALKER, List, iii, 537.—Jamaica.
 WESTWOOD, Trans. Ent. Soc., v, 231, pl. xxiii, f. 7.
 LOEW, Neue Beitr., i, 17.
 Jamaica—Johnson.
loewii WILLISTON, Synop. N. A. Syrph., 260.—Ariz.
meadei WILLISTON, Biologia, Dipt., iii, 76, pl. ii, f. 12.—Guerrero, Mex.
nigra BIGOT, Annales, 1883, 317 (*Sphyrimorpha*).—Mex.
 WILLISTON, Biologia, Dipt., iii, 77, oc.—Guerrero, Mex.
nigripennis WILLISTON, Synop. N. A. Syrph., 263.—Mex.
pedicellata WILLISTON, Synop. N. A. Syrph., 264; Biologia, Dipt., iii, 77.—Mex.: Guanajuato and Tehuantepec, Mex.
pictula LOEW, Neue Beitr., i, 17.—So. States.
 WILLISTON, Synop. N. A. Syrph., 261, quotes Loew.
rufibasis BIGOT, Annales, 1883, 318 (*Sphyrimorpha*).—Mex.
schnablei WILLISTON, Biologia, Dipt., iii, 76.—Vera Cruz, Mex.
scutellata WILLISTON, Synop. N. A. Syrph., 265.—Mex.
signifera LOEW, Neue Beitr., i, 18.—Mex.
 GIGLIO-TOS, Ditt. del Mess., i, 32.—Cordova, Mex.
 JOHNSON, Ent. News, iv, 91, desc. of puparium, etc.—Pa.
 Inverness, Fla.—Johnson.
 For Williston's ref., see *willistonii*.
superba WILLISTON, Synop. N. A. Syrph., 264.—Mex.
townsendi SNOW, Kans. Univ. Quart., iii, 246.—Las Cruces, N. M.
tricolor LOEW, Wien. Ent. Monatsch., v, 37.—Cuba.
tridens LOEW, Cent., x, 57.—Cal.

WILLISTON, Synop. N. A. Syrph., 263.—Cal., Wash.

JOHNSON, Ent. News, iv, 91, oc. at Denver, Col.

TOWNSEND, Trans. Amer. Ent. Soc., xxii, 54, notes.—N. M.

verralli WILLISTON, Biologia, Dipt., iii, 75.—Panama.

willistonii KAHL, Kans. Univ. Quart., vi, 141.—Kans.

WILLISTON, Synop. N. A. Syrph., 262 (*signifera* LOEW).—Texas, Fla.

BANKS, Proc. Ent. Soc. Wash., v, 310, puparium.—Va.

CONOPIDÆ.

TROPIDOMYIA.

WILLISTON, Canad. Ent., xx, 1, 1888.

bimaculata WILLISTON, Canad. Ent., xx, 11; Biologia, Dipt., iii, 84, oc.—Brazil (type); Guerrero, Mex.

? GIGLIO-TOS, Ditt. del Mess., ii, 68, doubtfully recognized from Orizaba.

CONOPS.

LINNÉ, Syst. Nat., 10th edit., No. 226, 1758.

FABRICIUS, Syst. Antl., 174, 1805.

FALLÉN, Conopsariæ, 7, 1817.

MEIGEN, Syst. Besch., iv, 119, 1824.

MACQUART, Hist. Nat. Dipt., ii, 21, 1835.

SCHINER, Fauna Austr., i, 369, 1862.

WILLISTON, Trans. Conn. Acad., vi, 387, 1885, revision of U. S. spp.; Biologia, Dipt., iii, 79, 1892, table of Mexican spp.

Among the synonyms may be mentioned:

Leopoldius RONDANI, Nuovo Ann. Sc. Nat. Bologna, x, 35, 1843.

Conopæjus RONDANI, Guérin's Mag. Zool., No. 153, 1845.

Conopilla, *Sphyrxosoma* and *Brachyglossum* RONDANI, Dipt. Ital. Prod., i, 56, 1856.

Pleurocina MACQUART, Dipt. Exot., Suppl., iv, 164, 1850.

Bombidia and *Cylindrogaster* LIOY, Acta Venet., 3 ser., ix, 1326 and 1327, 1864.

affinis WILLISTON, see *Physocephala*.

? **analis** FABRICIUS, Syst. Antl., 175.—S. A.

WIEDEMANN, Auss. Zw., ii, 237.—S. A.

MACQUART, Dipt. Exot., ii, 3, 14, pl. 1, f. 4, oc. in Carolina.

WILLISTON, Trans. Conn. Acad., iv, 342, quotes Fabricius and Wiedemann.

Macquart's identification is in all probability incorrect, in which case the species is extra-limital; hence the query.

anthreas WILLISTON, Biologia, Dipt., iii, 80.—Guerrero, Presidio and Vera Cruz, Mex.

auratus TOWNSEND, Trans. Amer. Ent. Soc., xxvii, 161.—Organ Mts., N. M.

brachyrhynchus MACQUART, Dipt. Exot., ii, 3, 15; pl. 1, f. 8.—N. A.

WILLISTON, Trans. Conn. Acad., iv, 341, quotes orig. desc.; 328 (*obscuripennis*).—Va., S. C., Ga., Mass., Kans., S. D.

TOWNSEND, Trans. Amer. Ent. Soc., xxii, 61, notes; oc. in N. M.

N. J.—Smith Cat.; St. Augustine, Fla.—Johnson.

bulbistrotris LOEW, Neue Beitr., i, 30.—No locality; referred to N. A. in O. S. Cat. on Loew's authority.

WILLISTON, Trans. Conn. Acad., iv, 331.—Ga., N. C.

N. J.—Smith Cat.; St. Augustine, Fla.—Johnson.

carbonarius BIGOT, see *Physocephala*.

? **costatus** FABRICIUS, Syst. Antl., 175.—S. A.

WIEDEMANN, Auss. Zw., II, 238.—S. A.

MACQUART, Dipt. Exot., II, 3, 14, pl. I, f. 4, oc. in Carolina.

WILLISTON, Trans. Conn. Acad., IV, 342, quotes Wiedemann.

VAN DER WULP, Tijdschr. v. Ent., XXV, 11; Macquart probably had a different species, making this extra-limital.

discalis WILLISTON, Biologia, Dipt., III, 80.—Guerrero and Tabasco, Mex.

GIGLIO-TOS, Ditt. del Mess., II, 67, note.—Orizaba.

excisus WIEDEMANN, Auss. Zweifl., II, 234 and 236 (*excisus* and *sugens*).—Ga.; no local.

WILLISTON, Trans. Conn. Acad., IV, 330.—Ga., Fla., N. C.

N. J.—Smith Cat.; Fla.—Johnson (*Physocephala*).

flaviceps MACQUART, Dipt. Exot., II, 3, 15.—N. A.

WILLISTON, Trans. Conn. Acad., IV, 341, quotes orig. desc.

fronto WILLISTON, Trans. Conn. Acad., VI, 378.—W. Kans.

GIGLIO-TOS, Ditt. del Mess., II, 64, refers to *Physocephala*.—Mex.

fulvipennis MACQUART, Dipt. Exot., II, 3, 13, pl. I, f. 9.—N. A.

WILLISTON, Trans. Conn. Acad., IV, 341, quotes orig. desc.

genualis LOEW, see *Physocephala sagittaria*.

gracilis WILLISTON, Trans. Conn. Acad., VI, 377.—Ariz.

TOWNSEND, Trans. Amer. Ent. Soc., XXII, 61, notes; oc. in N. M.

nigrimanus BIGOT, Annales, 1887, 38.—Ga.

obscuripennis WILLISTON, see *brachyrhynchus*.

ocellatus GIGLIO-TOS, see *parvus*.

ochreiceps BIGOT, see *Physocephala*.

parvus WILLISTON, Kans. Univ. Quart., 1892, 46.—Brazil.

GIGLIO-TOS, Boll. R. Univ. Torino, VII, No. 132, 1892 (*ocellatus*); Ditt. del Mess., II, 67, syn., etc.—Mex.

pictus FABRICIUS, Ent. Syst., IV, 391; Syst. Antl., 176.—West Indies.

WIEDEMANN, Auss. Zw., II, 239.—S. A.

MACQUART, Dipt. Exot., II, 3, 13 (in part).—Carolina.

BIGOT, in Sagra's Cuba, 808 (*ramondi*).—Cuba. [Lw.]

OSTEN SACKEN, Cat., 255, note.

WILLISTON, Trans. Conn. Acad., IV, 340, quotes Fabricius and Bigot.

Porto Rico—Roeder.

sequax WILLISTON, Biologia, Dipt., III, 80.—Guerrero, Mex.

GIGLIO-TOS, Ditt. del Mess., II, 67, note, oc. in Orizaba.

sylosus WILLISTON, Trans. Conn. Acad., IV, 329; Biologia, Dipt., III, 81, oc. and notes.—Mass., Conn., Kans.; Guerrero, Mex.

GIGLIO-TOS, Ditt. del Mess., II, 67, note; oc. in Tehuacan, Mex.

N. J.—Smith Cat.; White Mts., N. H.—Slosson.

xanthopareus WILLISTON, Trans. Conn. Acad., IV, 332.—Tex., Mass.

N. J.—Smith Cat.

PHYSOCEPHALA.

SCHINER, Wien. Ent. Monatsch., V, 1861; Fauna Austr., I, 375, 1862.

WILLISTON, Trans. Conn. Acad., VI, 388, 1885, table of species; Biologia, Dipt., III, 82, 1892, table of Mexican species.

affinis WILLISTON, Trans. Conn. Acad., IV, 339 (*Conops*); VI, 391, gen. ref.—Kans., Cal., Wash.

GIGLIO-TOS, Ditt. del Mess., II, 65, oc. in Mex.

- DAVIDSON, Ent. News, vi, 253, larvæ parasitic in nests of *Anthidium emarginatum*, in Cal.
- TOWNSEND, Trans. Amer. Ent. Soc., xxii, 62, notes.—Mich.
- burgessi** WILLISTON, Trans. Conn. Acad., iv, 337 (*Conops*); vi, 391, gen. ref.—Col., and Mendocino, Cal.
- Beulah, N. M.—Skinner.
- carbonaria** BIGOT, Annales, 1887, 42 (*Conops*).—Mex.
- ? WILLISTON, Biologia, Dipt., iii, 82, pl. ii, f. 13.—Vera Cruz, Mex., with a doubt.
- GIGLIO-TOS, Ditt. del Mess., ii, 66, oc. in Orizaba.
- castanoptera** LOEW, Neue Beitr., i, 33 (*Conops*).—Savannah.
- WILLISTON, Trans. Conn. Acad., iv, 336, transl. orig. desc.
- TOWNSEND, Trans. Amer. Ent. Soc., xxii, 62.—Mich.
- St. Augustine, Fla.—Johnson.
- ✓ **furcillata** WILLISTON, Trans. Conn. Acad., iv, 336 (*Conops*); vi, 391, gen. ref.—N. H., Canada.
- ? WALKER, List, iii, 671 (*Conops æthiops*).—N. A. [Will., with a doubt.]
- N. J.—Smith Cat.; Montreal—Chagnon; Adirondacks, N. Y.—Lintner and Needham.
- marginata** SAY, Jour. Acad. Sci. Phil., iii, 82; Compl. Works, ii, 73 (*Conops*).—Mo.
- WIEDEMANN, Auss. Zw., ii, 240 (id.).
- LOEW, Neue Beitr., i, 34 (id.), redesc. Wiedemann's specimen.
- WILLISTON, Trans. Conn. Acad., iv, 338 (id.); vi, 391, gen. ref.—Pa.
- N. H.
- maxima** GIGLIO-TOS, Boll. R. Univ. Torino, vii, no. 132, 1892; Ditt. del Mess., ii, 64.—Mex.
- nigrifacies** BIGOT, Annales, 1887, 40 (*Conops*).—Mex.
- WILLISTON, Biologia, Dipt., iii, 82.—Guerrero, Mex.
- ochreiceps** BIGOT, Annales, 1887, 39 (*Conops*).—Ga.; Mex.
- TOWNSEND, Trans. Amer. Ent. Soc., xxii, 62, notes, and oc. in N. M.
- WILLISTON, Biologia, Dipt., iii, 83, notes.—Guerrero, Mex.
- sagittaria** SAY, Jour. Acad. Sci. Phil., iii, 82; Compl. Works, ii, 73 (*Conops*).—Pa.
- LOEW, Neue Beitr., i, 32 (*Conops genualis*).—Ky. [Will.]
- GIGLIO-TOS, Ditt. del Mess., ii, 65, oc. in Mex.
- N. J.—Smith Cat.; Inverness, Fla.—Johnson.
- sororcula** WILLISTON, Biologia, Dipt., iii, 83.—Guerrero, Mex.
- GIGLIO-TOS, Ditt. del Mess., ii, 66, note.—Mex.
- texana** WILLISTON, Trans. Conn. Acad., iv, 338 (*Conops*); vi, 391, gen. ref.—Texas.
- Montreal—Chagnon.
- ✧ **tibialis** SAY, Jour. Acad. Sci. Phil., vi, 171; Compl. Works, ii, 363 (*Conops*).—Ind.
- WIEDEMANN, Auss. Zw., ii, 236 (*Conops nigricornis*).—Pa. [Will.]
- LOEW, Neue Beitr., i, 31 (id.).
- WILLISTON, Trans. Conn. Acad., iv, 334.—Mass., Conn., D. C., Va., N. C., Kans.
- TOWNSEND, Trans. Amer. Ent. Soc., xxii, 63, oc. in Mich., and Va. Fla.—Johnson.
- xanthops** WILLISTON, Biologia, Dipt., iii, 83.—Guerrero and Tabasco, Mex.
- GIGLIO-TOS, Ditt. del Mess., ii, 66, oc. in Tuxpango, Mex.

ZODION.

LATREILLE, Précis. des caract. gén., 1796.

SCHINER, Fauna Austr., I, 380, 1862.

WILLISTON, Trans. Conn. Acad., VI, 379, 1885; table of U. S. species, p. 392.

ADAMS, Kans. Univ. Sci. Bull., II, 33, 1903, table of species.

abitus ADAMS, Kans. Univ. Sci. Bull., II, 33.—Kansas and Mass.

albonotatum TOWNSEND, Jour. N. Y. Ent. Soc., V, 175; VI, 52, notes.—Brownsville, Texas.

[**americanum** WIEDEMANN, doubtfully recognized by Walker, List, III, 678, is almost certainly extra-limital.]

auricaudatum WILLISTON, Biologia, Dipt., III, 85, pl. II, f. 14a.—Guerrero, Mex.

bicolor ADAMS, Kans. Univ. Sci. Bull., II, 35.—Douglass Co., Kans.

flavipennis BIGOT, see *fulvifrons*.

fulvifrons SAY, Jour. Acad. Sci. Phil., III, 83 and 84 (*fulvifrons* and *abdominale*); Compl. Works, II, 74 (id.).—Md., Pa.; near Rocky Mts.

WIEDEMANN, Auss. Zw., II, 241, 242 (id.).

? ROBBINSON-DESVOIDY, Myodaires, 247 (*Myopa rubrifrons*).—Philadelphia. [Walker, List, III, 678; questioned by Williston.]

WILLISTON, Trans. Conn. Acad., VI, 380, 392; Biologia, Dipt., III, 84, oc. and syn.—New England, Cal., Wash., Ariz.; Guerrero, Mex.

BIGOT, Annales, 1887, 204 (*flavipennis*).—Mex. [Will.]

TOWNSEND, Psyche, 1897, 93, 127, 140; Trans. Amer. Ent. Soc., XXII, 63, notes.—N. M.; Ottawa, Canada.

GIGLIO-TOS, Ditt. del Mess., II, 68, oc. in Puebla, Cordova and Cuautla, Mex.

Montreal—Chagnon; Fla.—Johnson; Beulah, N. M.—Skinner; Axton, N. Y.—M. and H.

leucostoma WILLISTON, see *obliquefasciatum*.

nanellum LOEW, Cent., VIII, 75.—D. C.

? WALKER, List, III, 676 (*occidentis*).—Ohio. [Will., with a query.]

WILLISTON, Trans. Conn. Acad., VI, 382, transl. of Loew.

N. J.—Smith Cat.; Montreal—Chagnon; Porto Rico—Roeder; Fla.—Johnson.

occidentis WALKER, see *nanellum*.

obliquefasciatum MACQUART, Dipt. Exot., Suppl., I, 141 (*Myopa*).—Texas.

JÄNNICKE, Neue Exot. Dipt., 405 (97) (*splendens*).—Mexico.

WILLISTON, Trans. Conn. Acad., VI, 380 (*leucostoma*).—Kans., Mont., Ariz., S. D. [Will., Biol., III, 85.]

TOWNSEND, Trans. Amer. Ent. Soc., XXII, 63, note; Psyche, 1897, 127, 148, notes.—Zacatecas, Mex.; N. M.; N. M. (*splendens*).

ADAMS, Kans. Univ. Sci. Bull., II, 33, syn. Beulah, N. M.—Skinner.

palpale ROBERTSON, Canad. Ent., XXXIII, 284.—Carlville, Ill.

parvum ADAMS, Kans. Univ. Sci. Bull., II, 34 (*parvis*).—Ariz.

perlongum COQUILLET, Canad. Ent., XXXIV, 190.—Rio Ruidosa, N. M.; Chihuahua, Mex.; Col.

pictulum WILLISTON, Trans. Conn. Acad., VI, 379.—N. M.

pygmæum WILLISTON, Trans. Conn. Acad., VI, 381; Biologia, Dipt., III, 84, oc.—Cal., Col.; Guerrero, Mex.

scapulare ADAMS, Kans. Univ. Sci. Bull., II, 34.—Ariz.

splendens JÄNNICKE, see *obliquefasciatum*.

triste BIGOT, Annales, 1887, 203.—Cal.

zebrinum BIGOT, Annales, 1887, 204.—Mexico.

STYLOGASTER.

MACQUART, Hist. Nat. Dipt., II, 38, 1835; Dipt. Exot., II, 3, 17, 1845.

WESTWOOD, Proc. Zool. Soc. Lond., 1850, 270 (*Stylomyia*).

BIGOT, Rev. et Mag. de Zool., 1859, no. 7 (*Ptychoproctus*).

WILLISTON, Trans. Conn. Acad., VI, 91, 1883; Kans. Univ. Quart., I, 120, 1893.

TOWNSEND, Annals and Mag. Nat. Hist., XIX, 1897, 25, table of species; believes them parasitic on ants of the genus *Eciton*, from his observations.

ROEDER, Wien. Ent. Zeit., XI, 287, 1891, table of species.

biannulata SAY, Jour. Acad. Sci. Phil., III, 81; Compl. Works, II, 72 (*Myopa*). Pa.

WIEDEMANN, Auss. Zw., II, 243 (*Myopa stylata* FAB., in part).—S. A.

MACQUART, Dipt. Exot., II, 3, 17 (? *Stylogaster stylatus* FAB.), note.

WESTWOOD, Proc. Zool. Soc. Lond., 1850, 271 (*Stylomyia confusa*).

LOEW, Schaum's Jahresbericht, 1851, 133, note on syn.

OSTEN SACKEN, Cat., note 259, syn.

WILLISTON, Trans. Conn. Acad., VI, 93; Kans. Univ. Quart., I, 120, full discussion of *stylatus* FAB. and WIED.—Conn.

ethiops TOWNSEND, Annals and Mag. Nat. Hist., XIX, 26.—Vera Cruz.

minuta TOWNSEND, Annals and Mag. Nat. Hist., XIX, 27.—Vera Cruz.

neglecta WILLISTON, Trans. Conn. Acad., VI, 91; Kans. Univ. Quart., I, 120.—Conn.

WIEDEMANN, Auss. Zw., II, 243 (*Myopa stylata* FAB., in part).—S. A. [Will.]

TOWNSEND, Trans. Amer. Ent. Soc., XXII, 64, oc. in Kans.

N. J.—Smith Cat.

stylata FABRICIUS, Syst. Antl., 177 (*Conops*).—Brazil.

As to the possibility of present or future recognition of this species, see Roeder, Wien. Ent. Zeit., XI, 287, 1891, for the affirmative, and Williston, Kans. Univ. Quart., I, 120, 1893, for the negative.

stylosa TOWNSEND, Annals and Mag. Nat. Hist., XIX, 24.—Vera Cruz.

DALMANNIA.

ROBINEAU-DESVOIDY, Myodaires, 248, 1830.

MACQUART, Dipt. du Nord. de la France, 1833 (*Stachynia*); Hist. Nat. Dipt., II, 36, 1835 (id.).

SCHINER, Fauna Austr., I, 388, 1862.

WILLISTON, Trans. Conn. Acad., VI, 94, 1883.

COQUILLET, Ent. News, III, 150, table of species.

nigriceps LOEW, Cent., VII, 71.—Va.

WILLISTON, Trans. Conn. Acad., VI, 94.—Conn., N. Y., D. C., Mont.

N. J.—Smith Cat.

picta WILLISTON, Trans. Conn. Acad. Sci., VI, 94.—N. M. S. Cal.—Coq.

vitiosa COQUILLET, Ent. News, III, 150.—Cal., Los Angeles Co.

ONCOMYIA.

ROBINEAU-DESVOIDY, Dipt. Env. Paris, 50, 1853 (*Occemyia*; changed by Loew, Cent., VII, 73).

RONDANI, Dipt. Ital. Prod., I, 58, 1856 (*Thecophora*).

SCHINER, Fauna Austr., I, 381, 1862.

WILLISTON, Trans. Conn. Acad., VI, 95, 392, def. and table of species, 1883.

abbreviata LOEW, Cent., vii, 73.—D. C.

WILLISTON, Trans. Conn. Acad., vi, 97; Biologia, Dipt., iii, 86, oc. and note.—N. Y., D. C., Cal., Wash.; Durango, Mex.

GIGLIO-TOS, Ditt. del Mess., ii, 69, note.

Panamint Val., Cal.—Williston; N. J.—Smith Cat.; Montreal—Chagnon.

baroni WILLISTON, Trans. Conn. Acad., vi, 97.—Cal., Col.

TOWNSEND, Trans. Amer. Ent. Soc., xxii, 63, oc. in N. H., and note.

Beulah, N. M.—Skinner.

loraria LOEW, Cent., vii, 74.—N. H.

WILLISTON, Trans. Conn. Acad., vi, 98; Biologia, Dipt., iii, 86, oc.—Conn., Cal.; Guerrero, Mex.

TOWNSEND, Trans. Amer. Ent. Soc., xxii, 64, oc. in D. C., and note.

GIGLIO-TOS, Ditt. del Mess., ii, 10, oc. in Puebla, Mex., and note.

White Mts., N. H.—Slosson.

modesta WILLISTON, Trans. Conn. Acad., vi, 96.—Wash., Col.

var. **melanopoda** WILLISTON, loc. cit.—N. H.

propinqua ADAMS, Kans. Univ. Sci. Bull., ii, 32.—No locality.

MYOPA.

FABRICIUS, Syst. Ent., 798, 1775; Syst. Antl., 178, 1805.

MEIGEN, Syst. Besch., iv, 140, 1824.

RONDANI, Dipt. Ital. Prod., i, 58, 1856 (*Myopa* and *Gonirhynchus*).

SCHINER, Fauna Austr., i, 384, 1862.

WILLISTON, Trans. Conn. Acad., vi, 382, 393, table of species; also gives the divisions proposed by Robineau-Desvoidy and Liroy.

ADAMS, Kans. Univ. Sci. Bull., ii, 35, 1903, table of species.

bistria WALKER, List, iii, 679.—N. A.

castanea BIGOT, Annales, 1887, 207 (*Gonirhynchus*).—Nev.

clausa LOEW, Cent., vii, 72.—Me.

WILLISTON, Trans. Conn. Acad., vi, 385.—Mass., Conn., Mont., Cal., Ariz., Wyo., Wash.

White Mts., N. H.—Slosson; Hudsonian Zone, N. M.—Cockerell.

conjuncta THOMSON, Eugen. Resa, 515.—Cal.

fenestrata COQUILLETT, Canad. Ent., xxxiv, 197.—Sierra Madre, Chihuahua, Mex.

longicornis SAY, Jour. Acad. Sci. Phil., iii, 83; Compl. Works, ii, 72.—Mo.

WIEDEMANN, Auss. Zw., ii, 245.—Pa.

WILLISTON, Trans. Conn. Acad., vi, 386, quotes both desc.

maculifrons BIGOT, Annales, 1887, 206 (*Glossigona*).—Nev.

obliquefasciata MACQUART, see *Zodion*.

pictipennis WILLISTON, Trans. Conn. Acad., vi, 382.—Ariz., Cal.

GIGLIO-TOS, Ditt. del Mess., ii, 70, oc. in Toluca, Mex.

pilosa WILLISTON, Trans. Conn. Acad., vi, 383.—Cal.

plebeia WILLISTON, Trans. Conn. Acad., vi, 384.—Ariz.

pulchra COQUILLETT, Canad. Ent., xxxiv, 198.—Sierra Madre, Chihuahua, Mex.

rubida BIGOT, Annales, 1887, 206 (*Glossigona*).—Col.

tectura ADAMS, Kans. Univ. Sci. Bull., ii, 35.—No locality.

vesiculosa SAY, Jour. Acad. Sci. Phil., iii, 80; Compl. Works, ii, 72.—Pa.

WIEDEMANN, Auss. Zw., ii, 245.

? WALKER, List, iii, 679 (*apicalis*).—N. A. [Will., with a doubt.]

WILLISTON, Trans. Conn. Acad., vi, 384.—Pa., N. H., Mass., Ga.

N. J.—Smith Cat.; Montreal—Chagnon.

vicaria WALKER, List, III, 679.—Nova Scotia.

WILLISTON, Trans. Conn. Acad., VI, 386, quotes orig. desc.

N. J.—Smith Cat.; Montreal—Chagnon.

SICUS.

SCOPOLI, Entom. Carniolica, 1004, 1763.

SCHINER, Fauna Austr., I, 384, 1862.

brevirostris COQUILLETT, Canad. Ent., XXXIV, 198.—Sierra Madre, Chihuahua, Mex.

ÆSTRIDÆ.

BRAUER, Monographie der Æstriden, Vienna, 1863, is the great classic work on this family.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 158 and VI, 180, tables of genera of the world.

BRAUER, Zweifl. d. Kaiserl. Mus., III, 36, table of genera, based on larvæ of the third stage.

BRAUER, Denkschr. d. Kaiserl. Akad. Wiss., Math.-Naturwiss. Classe, LXIV, 259–282, I pl., has a fascinating article on the descent of the Æstridæ and on the elephant bot, *Cobboldia elephantis*, which may be brought to the United States in elephants from India.

TOWNSEND, Proc. Ent. Soc. Wash., II, 94, 1891, gives tables of genera, both for larvæ and adults, from Brauer.

OSBORN, Bull. Div. Ent., No. 5, notes on *Gastrophilus* and other bots.

HUNTER, Nebraska Bd. of Hort., 189, 291–300, popular illustrated account of bots.

AUSTEN, Annals and Mag. Nat. Hist., 6th ser., xv, 391, 1895, table of genera of *Cuterebrina*.

The following references have not been assigned to any genus:

Ground-squirrel bot: RILEY and HOWARD, Insect Life, IV, 147, extract from correspondence, on a new species from Kansas, not *emasculator*.

Bots affecting Man: BLANCHARD, Annales Soc. ent. de France, 1892, full summary of American cases.

RILEY and HOWARD, Ins. Life, v, 2, brief review of foregoing; p. 58, addition—notes on same subject.

See also under *Dermatobia*.

Botfly of Cat: RILEY and HOWARD, Insect Life, VI, 266, extract from correspondence on, in North Carolina; p. 327, two more cases, in N. Y. and Mo.

Botfly of Rabbit: RILEY and HOWARD, Insect Life, III, 21, extract from correspondence on, affecting jack-rabbits in Texas. See also *Cuterebra*.

GASTROPHILUS.

LEACH, On the Genera and Species of Eproboscideous Insects, 1817.

MEIGEN, Syst. Besch., IV, 174, 1824 (*Gastrus*).

SCHINER, Fauna Austr., I, 390, 1862.

BRAUER, Mon. Æstriden, 53, 1863, full biology, table of species, etc.

[**epilepsalis** FRENCH, Canad. Ent., 1900, 263, fig.; 1904, 83.—III.

ALDRICH, Canad. Ent., 1900, 318, rejects species.

Note.—Described from a larval specimen 2 mm. long, passed by a boy who had had epileptic spasms for four years!]

WASHBURN, Canad. Ent., XXXV, 320, case of a subcutaneous human parasite,—almost certainly a different species.

- BANKS, Canad. Ent., xxxv, 333, the original was not an *Æstrid* larva at all.
- equi** CLARK, Trans. Linn. Soc., III, 226, pl. XXIII, f. 7-9, 1788 (*Æstrus equi*).—Europe.
- FABRICIUS, Syst. Antl., 228, 1805 (id.).
- CLARK, Essay on Bots, 17, pl. I, f. 1-16 (id.).
- LEACH, Eproboscideous Insects, 1817.
- MEIGEN, Syst. Besch., iv, 175 (*Gastrus*).
- MACQUART, Hist. Nat. Dipt., II, 52 (*Æstrus*).
- SCHINER, Fauna Austr., I, 391, 1862.
- BRAUER, Mon. *Æstriden*, 68, full bibliogr. to 1863; figs. all stages, etc.
- FITCH, Trans. N. Y. Agl. Soc., IX, 799 (*Æstrus*), oc. in U. S., etc.
- HARRIS, Ins. of New England, 3d ed., 623, pl. VIII, f. 2.
- GARMAN, Annual Rept. Ky. Expt. Station, 1894, figs., etc.; notes an early account by Rev. Rowland Green, Adams' Medical and Agl. Register, 1806, 53.
- RILEY, Rept. Dept. of Agriculture, 1893, 213, summarizes results of investigations made for the Department by Osborn.
- TOWNSEND, Trans. Amer. Ent. Soc., XXII, 64, oc. in Jamaica.
- LUGGER, 2d Rept. Ent. Minn., 1896, 212-216, figs., habits, etc.
- HERRICK, Bull. 53, Miss. Expt. Station, 1900, brief account.
- The common stomach bot of the horse; N. A., wherever horses occur.
- hæmorrhoidalis** LINNÉ, Fauna Suec., 2d ed., No. 1733, year 1761 (*Æstrus*).—Europe.
- DEGEER, Hist. Nat. Ins., VI, 291, pl. xv, f. 13 (id.).
- CLARK, Trans. Linn. Soc., III, 289, pl. XXIII, f. 10-12 (id.).
- LEACH, Eproboscideous Ins., 1817.
- MEIGEN, Syst. Besch., iv, 177, 1824 (*Gastrus*).
- ZETTERSTEDT, Dipt. Scand., III, 981, 1844 (id.).
- SCHINER, Fauna Austr., I, 392, 1862.
- BRAUER, Mon. *Æstriden*, 83, figs., biology, etc.
- GARMAN, Ann. Rept. Ky. Expt. Station, 1894.
- LUGGER, 2d Rept. Ent. Minn., 216, notes and good fig.
- Larvæ in stomach, duodenum and rectum of the horse; N. A. generally, as preceding.
- nasalis** LINNÉ, Fauna Suecica, 2d ed., no. 1722, year 1761; Systema Naturæ, 12th ed., II, 969 (*Æstrus*).—Europe.
- FABRICIUS, Syst. Ent., 746 (id.); Ent. Syst., iv, 232 (*Æstrus equi*, var. *nasalis*); Syst. Antl., 230 (*veterinus* CLK.).
- CLARK, Trans. Linn. Soc., v, III, 328 (*Æstrus veterinus*); Essay on Bots, 33, pl. I (*Æstrus salutiferus*).
- LEACH, Eproboscideous Ins., 2 (*Æstrus clarkii*).
- MEIGEN, Syst. Besch., iv, 176-180 (*Gastrus salutaris*, *nasalis*, *jumentorum*, and *clarkii*).
- FALLÉN, Hæmatomyz., 12, 6 (*Æstrus veterinus*).
- MACQUART, Hist. Nat. Dipt., II, 53 (*Æstrus salutaris*).
- ZETTERSTEDT, Dipt. Scand., III, 979, 981 (*Gastrus nasalis* and *nigritus*).
- FITCH, Trans. N. Y. Agl. Soc., IX, 799, 1849, oc. in N. Y., and popular account (*Æstrus*).
- WALKER, List, III, 687 (*subjacens*).—Nova Scotia. [Brauer.]
- SCHINER, Fauna Austriaca, I, 391.
- BRAUER, Mon. *Æstriden*, 86, full biology, etc.
- TOWNSEND, Entom. News, III, 227, habits.

GARMAN, Ann. Rept. Ky. Expt. Station, 1894.

LUGGER, 2d Rept. Ent. Minn., 1896, 217-219, notes and good figure

Larvæ in the duodenum and about pylorus of the horse; distribution as the preceding.

[**pecorum** FABRICIUS, Ent. Syst., iv, 230, 1794 (*Æstrus*).—Europe.

WALKER, List, iii, 686, oc. in Jamaica.

BRAUER, Mon. *Æstriden*, 75, biology, bibliography, etc.; larvæ in the alimentary canal of the horse, clinging to the rectum like *hæmorrhoidalis*.—Europe.

GARMAN, Ann. Rept. Ky. Expt. Station, 1894, compiled desc.

Seems not to have been authoritatively recorded from North America.]

ÆSTRUS.

LINNÉ, *Fauca Suecica*, 2d ed., 428, 1761.

LATREILLE, *Fam. Nat.*, Règne Animal., 1825 (*Cephalomyia*).

SCHINER, *Fauna Austr.*, i, 392, 1862.

BRAUER, Mon. *Æstriden*, 147, 1863.

ovis LINNÉ, *Fauna Suecica*, 2d ed., 430, 1761.—Sweden.

FABRICIUS, *Syst. Ent.*, 747; *Ent. Syst.*, iv, 232; *Syst. Antl.*, 230.

CLARK, *Trans. Linn. Soc.*, iii, 289, pl. xxiii, f. 14-17.

LATREILLE, *Gen. Crust.*, iv, 341; *Dict. d'Hist. Nat.*; *Fam. Nat. d. Règne Animal.* (the last *Cephalomyia*).

SCHINER, *Fauna Austr.*, i, 392, 1862.

BRAUER, Mon. *Æstriden*, 151, full bibliog., biology, etc.—Europe and N. A.

FITCH, *Trans. N. Y. Agl. Soc.*, ix, 800, 1849 (*Cephalomyia*).

RILEY, *First Mo. Rept.*, 161-165, figs., life hist., etc.

CURTICE, *Animal Parasites of Sheep*, Govt. Printing Office, Washington, 1890; full discussion, figs., etc.

BAKER, *Entom. News*, vi, 174, notes on biology, and oc. at Fort Collins, Col.

LUGGER, 2d Rept. Ent. Minn., 1896, 219-225, life hist. and good figs.

HERRICK, *Bull.* 53, Miss. Expt. Station, brief notes.

Larvæ in frontal sinuses of sheep; widely distributed in N. A.

CEPHENOMYIA.

LATREILLE, *Fam. Nat. du Règne Animal.*, 1825.

SCHINER, *Fauna Austr.*, i, 394, 1862.

BRAUER, Mon. *Æstriden*, 183, 1863, amended.

Undetermined bots, supposed to belong to *Cephenomyia*:

Bots in deer: BRAUER, Mon. *Æstriden*, 211, pl. ix, f. 9, a larva found in throat of *Cervus macrotis* by Say, in N. W. Terr., U. S.

RILEY and HOWARD, *Insect Life*, i, 386, note on larva from deer in Cal.

Bots in the pig: RILEY and HOWARD, *Insect Life*, iii, 151, extract from correspondence, on bots in throats of hogs in W. Va.

Bots in man: RILEY and HOWARD, *Insect Life*, ii, 116, extract from correspondence, on larvæ in man's head; San Bernardino, Cal.

? **phobifer** CLARK, *Essay on Bots*, 69, pl. ii, f. 30 (*Æstrus*).—Ga.

BRAUER, Mon. *Æstriden*, 213, 291, pl. v, f. 11 (copied fig.). Referred with a doubt to this genus.

WIEDEMANN, *Anss. Zw.*, ii, 255, data compiled from Clark (*Æstrus*).

MACQUART, Dipt. Exot., II, 3, 25, pl. II, f. 8, brief compiled reference, and the figure does not agree with Brauer.

[*ulrichii* BRAUER, Mon. Cestrident, 199, pl. III, f. 8 and IX, f. 7.—Europe, in *Cervus alces*. Only larvæ were seen from N. A., hence the species here may not be the same.]

HYPODERMA.

CLARK, Essay on Bots, 1815.

LATREILLE, Fam. Nat. du Règne Animal., 1825.

SCHINER, Fauna Austr., I, 396, 1862.

BRAUER, Mon. Cestrident, 93, 1863.

Undetermined species:

Bot of man: RILEY and HOWARD, Insect Life, II, 238, account of larva removed from a boy in Pa.

bonassi BRAUER, Verh. Zool.-Bot. Ges., 1875, 75, larva only, on the buffalo.

Note.—I take the reference from O. S. Cat.; whether the buffalo is not the old-world species, as the name indicates, I am unable to ascertain.

[**bovis** DEGEER, see under *lineata*; *bovis* is not positively known from N. A.]

lineata DE VILLIERS, Ent. Linn., III, 349, pl. IX, f. 1, 1789 (*Estrus*).—Europe.

LEACH, Eproboscideous Insects, Suppl., 3 (*Estrus ericetorum*).

CLARK, Essay on Bots, 37, 67 and 72, pl. I, f. 30, 31, 32 (*Estrus bovis*, var. *vernalis*).

SCHINER, Fauna Austr., I, 397.

LOEW, Wien. Ent. Monatschr., Feb., 1863.

BRAUER, Mon. Cestrident, 122, 1863; Verh. Zool.-Bot. Ges., 1890, 509-516, discovery of host-relations, biology, etc.; infests the cow.

WALKER, List, III, 685 (*Estrus supplens*).—Nova Scotia.

OSTEN SACKEN, Cat., 143, synonymy.

FITCH, Trans. N. Y. Agl. Soc., IX, 800, popular account (*bovis*).

RILEY, Scientific American, Jan., 1877, pop. account (*bovis*).

COMSTOCK, Rept. Dept. Agriculture, 1881, 258, identifies the "Texas cattle heel fly" as *bovis*.

FARMERS' REVIEW, Chicago, July 17, 1889, et seq., investigation of damage to hides, etc.

CURTICE, Insect Life, II, 207, notes on larvæ (as *bovis*); thinks eggs or larvæ are taken through the mouth; Jour. Com. Medicine and Vet. Archives, XII, 265, June, 1891; announces conclusion that the American species is *lineata*, not *bovis*; life hist. and figs.

RILEY, The Ox Bot in the United States. Bulletin Dept. of Agriculture. Washington, 1892. 16 pp. and figs.

RILEY, Rept. Dept. of Agriculture, 1892, 159, pl. I, f. 2, and pl. II. Synopsis of life hist.

RILEY and HOWARD, Insect Life, I, 318, notes on, in Texas; II, 156, notes on work of Farmers' Review (*bovis*); II, 201, comments on theory of Curtice (*bovis*); II, 172, figs., habits, etc. (*bovis*); IV, 234, review of Curtice; IV, 302-317, full desc. and biology, with figs.

LINTNER, 6th N. Y. Report, 111-116, full life hist., figs., etc. (*bovis*).

HOLSTEIN, Ent. News, IV, 299, life hist.

LUGGER, 2d Rept. Ent. Minn., 1896, 226, notes and good fig.

The "Warble Fly" of cattle; larvæ under the skin of the back. Occurs very generally throughout the United States, and presumably other cattle-raising sections of North America.

CEDEMAGENA.

LATREILLE, Fam. Nat. du Règne Animal., 1825.

BRAUER, Mon. Cestridenten, 130, 1863 (as a subg. of *Hypodermia*; in later works, as in Zweifl. d. Kaiserl. Mus., he accords the genus full rank.

tarandi LINNÉ, Fauna Suec., 2d ed., 429, no. 1731, year 1761 (*Cestrus*).—Europe.

FABRICIUS, Syst. Antl., 227 (id.).

FALLÉN, Hæmatomyz., 10 (id.).

MEIGEN, Syst. Besch., iv, 169, pl. xxxviii, f. 15 (*Cestrus*).

MACQUART, Hist. Nat. Dipt., ii, 49, oc. in N. A.

ZETTERSTEDT, Dipt. Scand., iii, 973.

BRAUER, Mon. Cestridenten, 131, bibliog., biology, etc.—Europe and N. A.

WILLISTON, Trans. Amer. Ent. Soc., xiii, 307, confirms oc. in N. A.

COQUILLETT, Proc. Wash. Acad. Sci., ii, 438, oc. in Alaska.

The larvæ live under the skin of the reindeer, hence only far north.

BOGERIA.

AUSTEN, Annals and Mag. Nat. Hist., 6th ser., xv, 391-393, 1895.

TOWNSEND, Psyche, 1897, 8, says he has obtained larvæ of this genus from jack-rabbits in N. M.; had previously referred them to *Dermatobia*.

principis AUSTEN, loc. cit., 393-395, pl. xiii, f. 5, 5b.—Gulf of Cal., Mex.

CUTEREBRA.

CLARK, Essay on Bots, 1815.

WIEDEMANN, Auss. Zw., ii, 256, 1830 (*Trypoderma*).

BRAUER, Mon. Cestridenten, 219, 1863.

AUSTEN, Annals and Mag. Nat. Hist., ser. 6, xv, 377, 1895 (*Cutiterebra*).

MIK, Wien. Ent. Zeitung, xvi, 35, no. 62, has a few sensible remarks on the use of *Cutiterebra* and on the propriety of short forms in general.

Undetermined species:

Bot in Rabbit, mentioned by Townsend, see *lepusculi*.

Bot in Mouse: RILEY and HOWARD, Insect Life, vi, 46, note on a bot in mouse, *Sitomys californicus*, at West Creek, Cal.

americana FABRICIUS, Syst. Ent., 774; Ent. Syst., iv, 315; Syst. Antl., 288 (all *Musca*).—W. I.

CLARK, Essay on Bots, 70, pl. ii, f. 3 (*cauterium*).—Ogeechee Riv. [Wied.]

WIEDEMANN, Auss. Zw., ii, 258 (*Trypoderma*).—N. A.

MACQUART, Dipt. Exot., ii, 3, 23.—N. A.

BRAUER, Mon. Cestridenten, 242, pl. iv, f. 2 and vi, f. 7.—Mex.

AUSTEN, Annals and Mag. Nat. Hist., 6th ser., xv, 383, redesc.—Ga.

TOWNSEND, Proc. Cal. Acad. Sci., iv, 618, note on doubtful oc. in Cal.; Trans. Amer. Ent. Soc., xxii, 64, oc. in Ariz.; notes.

Beulah, N. M.—Skinner.

analis MACQUART, Dipt. Exot., ii, 3, 22, pl. ii, f. 5.—Brazil.

GUÉRIN-MÉNEVILLE, Iconographie du Règne Animal., Ins., 547, pl. ci, f. 1 (*apicalis*).—America. [Austen.]

VAN DER WULP, Biologia, Dipt., ii, 1 (*emasculator* FITCH).—N. Sonora and Presidio, Mex. [Austen.]

AUSTEN, Annals and Mag. Nat. Hist., xv, 386.—Orizaba, Mex., and Brazil.

- approximata** WALKER, in Lord's "Naturalist in Vancouver Id. and British Col.," II, 338, 1866.—Vancouver Id.
 AUSTEN, Annals and Mag. Nat. Hist., xv, 380, 382, type redesc.
 VAN DER WULP, Biologia, Dipt., II, 2, oc. in Chihuahua, Mex., and Guatemala.
- atrox** CLARK, Essay on Bots, addenda, f. 5.—Mex.
 WALKER, List, III, 683 (*terrisona*).—Guatemala.
 BRAUER, Mon. (Estriden, 241, 242 and 244, 245 (latter as *terrisona* WALK., reproducing Walker's desc.).—Mexico and Guatemala.
 VAN DER WULP, Biologia, Dipt., II, 2 (*approximata* WALKER).—Chihuahua, Mex.
 AUSTEN, Annals and Mag. Nat. Hist., ser. 6, xv, 382, pl. XIII, f. 2, 2a, redesc. of Walker's type, above synonymy, etc.
- buccata** FABRICIUS, Genera Ins., 305, 1776; Mantissa Ins., 305; Ent. Syst., IV, 230; Syst. Antl., 227 (*Æstrus*).—S. Carolina.
 WIEDEMANN, Auss. Zw., II, 259 (*Trypoderma*).—N. A.
 OLIVIER, Encycl. Méthodique, VIII, 464.
 MACQUART, Hist. Nat. Dipt., II, 47.—N. A.; larvæ under skin of a species of hare.
 CLARK, Essay on Bots, 70, 4, pl. II, f. 29 (*purivora*).
 BRAUER, Mon. (Estriden, 249, pl. IV, f. 4; VI, f. 9.—Ky.; Pa.
 WALKER, List, III, 683 (*horripilum* CLARK).—Nova Scotia.
 RATHVON, Amer. Entomologist, I, 1869, 116, oc. of larvæ in a striped squirrel.
 LUGGER, 2d Rept. Ent. Minn., 1896, 229, fig., no desc. (*baccata*, by mistake).
 AUSTEN, Annals and Mag. Nat. Hist., 6th ser., xv, 384, notes and synonymy.
 Mass.—Harris; N. J.—Smith Cat.; Fla.—Johnson.
- cuniculi** CLARK, Trans. Linn. Soc., III, 299; Essay on Bots, 70, pl. II, f. 26 (*Æstrus*).—Ga.; larva under skin of rabbits.
 FABRICIUS, Syst. Antl., 230 (*Æstrus*).—Ga.
 WIEDEMANN, Auss. Zw., II, 256 (*Trypoderma*).—Ga.
 OLIVIER, Encycl. Méthodique, VIII, 464.
 MACQUART, Hist. Nat. Dipt., II, 47, pl. XIII, f. 17.—Ga.
 BRAUER, Mon. (Estriden, 240; doubts if it be different from *horripilum*.
 RILEY and HOWARD, Insect Life, v, 137, extract from correspondence, on this species affecting rabbits in Va. and Ind.
 Mass.—O. S. Cat.
- emasculator** FITCH, see *fontinella*.
- fontinella** CLARK, Trans. Linn. Soc., xv, 410.—Ill.
 FITCH, 2d N. Y. Report, 210; 3d Rept., Suppl., 478-485 (*emasculator*).—N. Y.; larva lives in scrotum of chipmunk, *Tamias striatus*.
 WALKER, List, III, 683 (*americana* FABR.).—Nova Scotia.
 BRAUER, Mon. (Estriden, 232, abstract of Fitch; 242, quotes Clark.
 LINTNER, 2d N. Y. Report, 45 (*emasculator*).—N. Y.; same habits.
 RILEY and HOWARD, Insect Life, I, 214, fig. of larva and notes (*emasculator*); occurs in other parts than the scrotum; probably affects several species of squirrels.
 VAN DER WULP, Biologia, Dipt., II, 1, oc. at Presidio, Mex. (*emasculator*).
 AUSTEN, Annals and Mag. Nat. Hist., ser. 6, xv, 384, desc.; XVI, 152, notes and syn. of Walker.
 COQUILLETT, Canad. Ent., XXX, 9, syn. of *emasculator*, from Fitch's type.

- funnebris** AUSTEN, Annals and Mag. Nat. Hist., ser. 6, xv, 378, pl. XIII, f. 1, 1b.—Trinidad, W. I.; larva in Spiny Rat, *Loncheres Guianæ*. Quotes circular by Hart, Botanical Dept., Trinidad, on rearing the larvæ.
- histrio** COQUILLET, Proc. U. S. N. M., xxv, 103.—Guanaxuato, Mex.
- horripilum** CLARK, Essay on Bots, 70, pl. II, f. 27.—Savannah, Ga.
WIEDEMANN, Auss. Zw., II, 257 (*Trypoderma*).—Ga.
WALKER, List, III, 683, oc. in Nova Scotia.
BRAUER, Mon. Cestrident., 235, pl. IV and VI.—N. Y., Ga.
LUGGER, 2d Rept. Ent. Minn., 1896, 229, fig., no desc.—Minn.
See also *cuniculi*.
- latifrons** COQUILLET, Canad. Ent., xxx, 10.—Los Angeles Co., Cal.
- leporivora** COQUILLET, Canad. Ent., xxx, 9, 10 (*leporivora*).—Cal., Wyo.: bred from the cotton-tail rabbit.
JOHNSON, Ent. News, XII, 293, oc. at Beulah, N. M.
COQUILLET, Proc. U. S. N. M., xxv, 104, important addition to desc.
Beulah, N. M.—Skinner.
- lepusculi** TOWNSEND, Psyche, 1897, 8, desc.: Psyche, 1892, 299, description of larva from cotton-tail rabbit; Insect Life, v, 319, refers larva to *fontinella* CLK.—New Mexico and Colorado.
AUSTEN, Annals and Mag. Nat. Hist., ser. 6, xv, 384, shows that Townsend's species is not *fontinella*.
- nitida** COQUILLET, Canad. Ent., xxx, 10.—Los Angeles Co., Cal.
TOWNSEND, Psyche, 1898, 268, oc. in N. M., and notes.
- polita** COQUILLET, Canad. Ent., xxx, 10.—National Park, Wyo.
- scutellaris** BRAUER, Mon. Cestrident., 230, pl. IV and VI.—N. A. Wash.—J. M. A.
- similis** JOHNSON, Trans. Amer. Ent. Soc., xxix, 101.—Beulah, N. M.
- sterilator** LUGGER, 2d Rept. Ent. Minn., 227-229, fig.—Minn.; larva supposed to live in scrotum of ground-squirrel, *Spermophilus tredecimlineatus*.
- tenebrosa** COQUILLET, Canad. Ent., xxx, 11.—Col., Cal., Ore.
Piedmont, S. D.—J. M. A.
- terrisona** WALKER, see *atrox*.

DERMATOBIA.

BRAUER, Verh. Zool.-Bot. Ges., 1860; Mon. Cestrident., 251, 1863.

No North American species have been described. The following papers relate to this genus:

SAY, "On the South American species of *Cestrus*, which inhabits the Human Body," Jour. Acad. Sci. Phil., II, 354, 1822; Compl. Works, II, 32.

RUDOLPH MATAS, M.D., paper by, on species infesting man in New Orleans; reprinted, with figs., in Insect Life, I, 76.

OSBORN, Insect Life, I, 226, quotes another account from Miss.

TOWNSEND, Psyche, Aug., 1892, 299, describes a larva from *Lepus callosus*; afterward refers it to *Bogeria*, q. v.

TACHINIDÆ.

Note.—The classification adopted follows closely that of Coquillett. Revision of the Tachinidæ, Bulletin of Division of Entomology, Technical series, No. 7, 1897. This work seems to embody a far clearer and more consistent idea of the genera than any other general work on the American species of the family. It includes, however, only the fauna of the United States, and that no farther than seen by the author. This has necessitated my adding a large number of

genera and species, which I have endeavored to distribute in accordance with the classification in the work mentioned. I cannot hope to have made a perfect success of this, considering the difficulty of the family.

The work of Brauer and Bergenstamm, *Vorarbeiten zu einer Monographie der Muscaria schizometopa*, forming parts iv, v and vi of the series called *Zweiflügler des Kaiserlichen Museums zu Wien*, is an elaborate and extensive work, characterized by a minute subdivision of the group into numerous so-called families, sections, super-genera, and genera. Although it shows an immense amount of patient and faithful study, it is vitiated by a failure to grasp the natural divisions between groups of the same category. Hence it must be used with caution, and much experience is necessary before one can judge of its authoritativeness in a particular case. The table contains many illusory characters, and the usefulness of the work is further marred by a succession of addenda, modifying the system in numerous parts, and making it still more difficult to follow.

The work of Townsend shows itself to have been powerfully influenced by the one just mentioned; hence there is a serious confusion of genera, and in some instances the same species is described several times under different genera, or in the same genus. The worst instance of this will be found under *Myiophasia anca*. This was not the result of carelessness but of a too narrow splitting up of genera and species, in the attempt to follow Brauer and Bergenstamm. The specific descriptions of Townsend are conscientious and faithful, and among the most recognizable of any in the family.

The extensive article by Van der Wulp on the Mexican and Central American fauna, published in vol. II of the *Diptera in Biologia Centrali-americana*, goes to the other extreme in the matter of genera, and the large genera in it are without exception heterogeneous collections, which can at present hardly be placed consistently in the system here adopted.

The descriptions by Bigot are in every way objectionable, almost always referred to the wrong genus, and seldom containing the essential data. Most fortunately, the types of nearly all the species have been examined by Brauer, who has elucidated them in accordance with his system in three articles in *Sitzungsberichten der Kaiserlichen Akademie der Wissenschaften (Mathematischen-Naturwissenschaftlichen Classe, Bd. cvi, cvii and cviii)*. This makes it possible to arrange them fairly well in the present work.

The following tables of genera may be consulted:

TOWNSEND, *Proc. Ent. Soc. Wash.*, II, 92, 96; *Trans. Amer. Ent. Soc.*, XIX, 134.

VAN DER WULP, *Biologia, Dipt.*, II, 5 and 41.

COQUILLETT, *Revision Tach.*, 30; this is most important.

The synonymy adopted by Coquillett in his *Revision* has been followed rather closely for the species included in that work, without giving credit in the references.

To facilitate reference through the index, I mention the following cases where the genus might not otherwise be found:

Argyrophylax rostrata Coq. has been placed in *Siphosturmia*.

Ceromasia ROND. is a synonym of *Masicra*; but only *chrysoccephala* and *zonata* of Bigot have been placed there. His *abbreviata*, *pictigaster*, *quadrivittata* and *spinipes* will be found in *Hypostena*, while his *castanifrons* has been referred to *Prospheya*.

Chætolyga is a synonym of *Winthemia*; but the species of Bigot will be found under *Exorista*, *Hypostena*, *Phorocera* and *Winthemia*.

Dimorphomyia calliphoroides BIGOT, Bull. Soc. Ent. France, 1885, has been found on examination of the type to consist of the head of a Syrphid glued to the body of a Muscid. See BRAUER, Sitzungsbericht Kaiserl. Akad., CVII, 14. We may say at least that it was admirably named!

Eggonia VAN DER WULP, mentioned by Brauer and Bergenstamm, Zweifl. Kaiserl. Mus., VI, 104, lacks a specific name for the type, and must have been a manuscript name on some of Van der Wulp's material.

Eurigaster MACQ. is a synonym of *Exorista*, but *E. septentrionalis* WALKER will be found under *Euphorocera claripennis*.

Fabricia DESV. is a synonym of *Echinomyia*, but Bigot's *F. infumata* will be found under *Archytas bicolor*.

Loewia EGGER; the species of Townsend all fall under *Myiophasia anca*.

Lophosia setigena THOMSON has been placed under *Clansicella*.

Lydella doryphoræ RILEY will be found under *Phorocera*, although the genus is a synonym of *Exorista*.

Melanosphora diabroticæ SHIMER is a *Celatoria*.

Micropalpus is a synonym of *Linnæmyia*, but some of the species are placed under *Epalpus* and *Cuphocera*.

Oplisa albifacies BIGOT is referred to *Pseudodexia* by Brauer, and *O. nigri-facies* to *Medina*.

Pachychæta jarowchewskyi PORTSCHINSKY, from Russian America, is listed by B. and B. among the material in the Vienna Museum; but I have found no other reference to it.

Phasia atripennis SAY is referred to *Xanthomelana*, and *jugatoria* to *Trichopoda pennipes*.

Podotachina americana B. B. is referred to *Tachina mella*, and *P. vibrissata* B. B. to *Euphorocera claripennis*.

Pseudogermaria georgiæ B. B. is referred to *Distichona*.

Ptilocera americana MACQ. is referred to *Phyto*.

Pyrrosia ochracea BIGOT is referred to *Cestrophasia*.

Siphoniomyia melas BIGOT is referred to *Trichophora analis*.

Thysanomyia inermis BIGOT, mentioned by Johnson, Dipt. of Florida, may be *Blepharipeza inermis*, but I am not certain.

The species of *Tryphera* described by Townsend all go in *Polidca*.

Viviana citrina BIGOT will be found under *Chatona longiseta*; *georgiæ* in *Biomyia*; and *rufopygata* in *Leskia*.

Wahlbergia is a synonym of *Besseria*, but Townsend's *atripennis* is a *Xanthomelana*.

Xysta didyma LOEW is a *Clytiomyia*.

CISTOGASTER.

LATREILLE, in Cuvier's Règne Anim., v, 1829.

DESVOIDY, Myodaires, 239, 1830 (*Pallasia*).

SCHINER, Fauna Austr., I, 411, 1862.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 156, 157 (the latter as *Gymnoclytia*), 1893.

TOWNSEND, Canad. Ent., XXV, 166; Annals and Mag. Nat. Hist., XX, 284, table of species; both articles contain speculations on the synonymy of the genus.

VAN DER WULP, Biologia, Dipt., II, 445, 1903, table of Mexican species.

ferruginea VAN DER WULP, Tijdschr. v. Ent., XXXV, 187; Biologia, Dipt., II, 448.

—Guerrero and Tabasco, Mex.

- griseonigra* VAN DER WULP, Tijdschr. v. Ent., xxxv, 187; Biologia, Dipt., II, 447.
—Guerrero, Mex.
- hirticollis* VAN DER WULP, Tijdschr. v. Ent., xxxv, 187; Biologia, Dipt., II, 448.
—Guerrero, Mex.
- immaculata* MACQUART, Dipt. Exot., II, 3, 233 (76), pl. VIII, f. 7.—Carolina.
WALKER, List, IV, 692 (*Gymnosoma occidua*).—Nova Scotia.
LOEW, Cent., IV, 88 (*divisa*).—Conn.
WILLISTON, Trans. Amer. Ent. Soc., XIII, 296, female described (*divisa*).
—Conn., Kans., Col., Cal.
COQUILLET, Revis. Tachin., 43.—Canada to Texas and S. D.; Col., Cal.
TOWNSEND, Canad. Ent., XXII, 66; Annals and Mag. Nat. Hist., XIX, 31
and XX, 283. Notes on sexual differences, etc.
FORBES, Psyche, 1893, 466, bred from ? *Leucania unipuncta* HAW.
Axton, N. Y.—M. and H.; Province of Quebec—Fyles.
- insularis* WILLISTON, Trans. Ent. Soc. Lond., 1896, 351.—St. Vincent, W. I.
- melanosoma* VAN DER WULP, Tijdschr. v. Ent., xxxv, 186; Biologia, Dipt., II,
446.—Guerrero, Mex.
- pallasi* TOWNSEND, Proc. Ent. Soc. Wash., II, 1891, 42.—S. D.
COQUILLET, Canad. Ent., XXX, 233, not seen.
Note.—The type looked to me like a melanic variety of *immaculata*.
- propinqua* VAN DER WULP, Tijdschr. v. Ent., xxxv, 187; Biologia, Dipt., II, 447.
—Guerrero, Mex.
- ruficornis* VAN DER WULP, Tijdschr. v. Ent., xxxv, 186; Biologia, Dipt., II, 446.
—Tabasco, Mex.
TOWNSEND, Canad. Ent., XXV, 166, would refer to *Gymnosoma fliola*—that
is, *G. fuliginosa* of this catalogue.
- subpetiolata* VAN DER WULP, Tijdschr. v. Ent., xxxv, 186; Biologia, Dipt., II,
446.—Vera Cruz, Mex.
- variegata* VAN DER WULP, Tijdschr. v. Ent., xxxv, 187; Biologia, Dipt., II, 449.
—Guerrero, Mex.
- GIGLIO-TOS, Ditt. del Mess., III, 6, notes.—Orizaba, Mex.

GYMNOSOMA.

- MEIGEN, Illig. Mag., II, 278, 1803.
- SCHINER, Fauna Austr., I, 409, 1862.
- BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 153, 1893.
- fuliginosa* DESVOIDY, Myodaires, 237.—Carolina.
WALKER, List, IV, 692 (*par*).—Nova Scotia.
LOEW, Cent., X, 66 (*filiola*).—Texas.
COQUILLET, Rev. Tachin., 43.—N. H. to Cal.; Canada; La., etc.
Porto Rico—Roeder; N. M.—Townsend; Montreal—Chagnon; Axton, N.
Y.—M. and H.
- occidua* WALKER, see *Cistogaster immaculata*.

ELIOZETA.

- RONDANI, Dipt. Ital. Prod., I, 82, 1856.
- BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 150, 1889; V, 388,
1891; VI, 157, 1893.
- americana* BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., V, 407.—Ga.

PHORANTHA.

- RONDANI, Dipt. Ital. Prod., V, 21, 1862.
- BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 149, 1899; VI,
157, 1893.

COQUILLETT, Revis. Tachin., 43, 1897.

bidwelli HINE, Ohio Naturalist, II, 229, 1902.—Baldwin, Kans.

calyptrata COQUILLETT, Revis. Tachin., 44.—D. C., Va., Ky.

fenestrata BIGOT, Annales, 1888, 255 (*Alophora*).—Nev.

COQUILLETT, Proc. U. S. N. M., XXV, 105, oc. at Moscow, Ida.

For the *Alophora fenestrata* of Coquillett's Revision, 46, see *A. splendida*.

humeralis ROBERTSON, see *occidentis*.

nigrens VAN DER WULP, Tijdschr. v. Ent., XXXV, 185 (*Hyalomyia*); Biologia, Dipt., II, 443 (id.).—Guerrero, Mex.

COQUILLETT, Revis. Tachin., 43.—Los Angeles Co., Cal.

occidentis WALKER, Dipt. Saund., I, 260 (*Hyalomyia*).—U. S.

BIGOT, Annales, 1888, 255 (*Alophora luctuosa*).—Nevada.

TOWNSEND, Proc. Ent. Soc. Wash., II, 136 (*Hyalomyia punctigera*, *aldrichi*, *robertsonii* and *purpurascens*); Trans. Amer. Ent. Soc., XXII, 65 (*H. celer*); Annals and Mag. Nat. Hist., XX, 32 (*H. violascens*).—Va., S. D., Ill., N. M., and San Rafael, Vera Cruz, Mex.

COQUILLETT, Revis. Tachin., 44.—Ft. McLeod, British Amer. to Mex.; Md. to Cal.

ROBERTSON, Canad. Ent., XXXIII, 285 (*pruinosa* and *humeralis*).—Carlinville, Ill. [J. M. A.]

Note.—I examined Townsend's types, except *violascens*, and agree with Mr. Coquillett in the above synonymy.

pruinosa ROBERTSON, see *occidentis*.

ALOPHORA.

DESVOIDY, Myodaires, 293, 1830; op. cit., 298 (*Hyalomyia*).

SCHINER, Fauna Austr., I, 401, 1862.

BRÄUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 149, 1889; VI, 157, 1893.

HINE, Ohio Naturalist, II, 229, note on habits of this and *Phorantha*.

VAN DER WULP, Biologia, Dipt., II, 440, 1903, table of Mexican species (*Hyalomyia*).

Note.—Some of the species published under *Hyalomyia* will be found under *Phorantha* and *Hyalomyodes*.

æneoventris WILLISTON, Trans. Amer. Ent. Soc., XIII, 296 (*Hyalomyia*).—Wash.

COQUILLETT, Revis. Tachin., 45.—Wash., Ida., N. H., Va.

N. J.—Smith Cat.

argenteipes VAN DER WULP, Tijdschr. v. Ent., XXXV, 185 (*Hyalomyia*); Biologia, Dipt., II, 442 (id.).—Guerrero, Mex.

diversa COQUILLETT, Revis. Tachin., 45.—Mass.; Oswego, N. Y.

ecitonis TOWNSEND, Annals and Mag. Nat. Hist., XX, 30 (*Hyalomyia*).—Vera Cruz, Mex.; hovering over an army of ants, *Eciton forcli*, and supposed to be parasitic on them.

fenestrata BIGOT, see *Phorantha*.

fumosa COQUILLETT, Revis. Tachin., 46.—N. J., Va.

grandis COQUILLETT, Revis. Tachin., 45.—Lufkin, Tex.; So. Ill.

hebes VAN DER WULP, Tijdschr. v. Ent., XXXV, 185 (*Hyalomyia*); Biologia, Dipt., II, 441 (id.).—Vera Cruz and Tabasco, Mex.

luctuosa BIGOT, see *Phorantha occidentis*.

moerens VAN DER WULP, Tijdschr. v. Ent., XXXV, 186 (*Hyalomyia*); Biologia, Dipt., II, 443 (id.).—Guerrero, Mex.

- munda** VAN DER WULP, Tijdschr. v. Ent., xxxv, 185 (*Hyalomyia*); Biologia, Dipt., II, 441, pl. XIII, f. 9 (id.).—Vera Cruz and Guerrero, Mex.
- nitida** COQUILLET, Revis. Tachin., 45.—Potomac Cr., Va.; Sherbrooke, Canada.
- ochriceps** VAN DER WULP, Tijdschr. v. Ent., xxxv, 185 (*Hyalomyia*); Biologia, Dipt., II, 442 (id.).—Guerrero, Mex.
- opaca** COQUILLET, Revis. Tachin., 44.—E. Wash.
- phasioides** COQUILLET, Revis. Tachin., 46.—Franconia, N. H.
- piceipes** VAN DER WULP, Tijdschr. v. Ent., xxxv, 186 (*Hyalomyia*); Biologia, Dipt., II, 443 (id.).—Guerrero, Mex.
- pulverea** COQUILLET, Revis. Tachin., 46.—Grimsby, Canada.
- splendida** COQUILLET, Proc. U. S. N. M., xxv, 105, footnote; Revis. Tachin., 46 *fenestrata* BIGOT).—N. H.
- subopaca** COQUILLET, Revis. Tachin., 47.—Woodbury, N. J.
- umbrifera** VAN DER WULP, Tijdschr. v. Ent., xxxv, 186 (*Hyalomyia*); Biologia, Dipt., II, 444 (id.).—Guerrero, Mex.
- umbrosa** VAN DER WULP, Tijdschr. v. Ent., xxxv, 186 (*Hyalomyia*); Biologia, Dipt., II, 444, pl. XIII, f. 10 (id.).—Guerrero, Mex.
- villosa** VAN DER WULP, Tijdschr. v. Ent., xxxv, 185 (*Hyalomyia*); Biologia, Dipt., II, 441 (id.).—Orizaba, Mex.

HIMANTOSTOMA.

- LOEW, Cent., IV, 87, 1863.
- sugens** LOEW, Cent., IV, 87.—Ill.

EUSCOPOLIA.

- TOWNSEND, Trans. Amer. Ent. Soc., XIX, 123, 1892.
- BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 199, 1893.
- dakotensis** TOWNSEND, Trans. Amer. Ent. Soc., XIX, 123.—Brookings, S. D.

TRICHOPODA.

- LATREILLE, in Cuvier's Règne Anim., v, 512, 1829.
- BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 147, 1889; VI, 155, 1893.
- COQUILLET, Revis. Tachin., 47, 1897.
- TOWNSEND, Ent. News, IV, 69, range and distribution of the genus; Proc. Ent. Soc. Wash., II, 137, numerous notes; Annals and Mag. Nat. Hist., XX, 273, notes and table of N. A. species.
- VAN DER WULP, Biologia, Dipt., II, 434, 1903, table of Mex. species.
- alipes** VAN DER WULP, Tijdschr. v. Ent., xxxv, 183, and Biologia, Dipt., II, 435.—Guerrero, Mex.
- cilipes** WIEDEMANN, Auss. Zweifl., II, 276, change of name and desc. FABRICIUS, Syst. Antl., 219 (*Thereva pennipes*).—Carolina.
- TOWNSEND, Proc. Ent. Soc. Wash., II, 140 (*aurantiaca*).—Va.
- COQUILLET, Revis. Tachin., 48.—Mass., D. C., Va., Ga., Fla., Mo., Kans., Tex.
- N. J.—Smith Cat.
- flava** ROEDER, Stett. Ent. Zeit., 1885, 343.—Porto Rico.
- TOWNSEND, Proc. Ent. Soc. Wash., II, 139, brief desc.
- formosa** WIEDEMANN, see *lanipes*.
- histrio** WALKER, see *plumipes*.
- lanipes** FABRICIUS, Syst. Antl., 220 (*Thereva*), male.—Carolina.
- WIEDEMANN, Auss. Zweifl., II, 268 and 270 (*lanipes* FABR., male, and *formosa*, female).—Carolina and Georgia.

- LOEW, Cent., IV, 89 (*radiata*).—D. C.
 TOWNSEND, Proc. Ent. Soc. Wash., II, 138 (*radiata* Lw.).
 BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 412, syn. of *formosa*.
 JOHNSON, Ent. News, XII, 294, same.
 GIGLIO-TOS, Ditt. del Mess., III, 6, oc. at Cuautla, Mex.
 COQUILLETT, Revis. Tachin., 47.—Fla.: Waco, Tex.; Col.
 COQUILLETT, Revis. Tachin., 48 (*formosa*).—D. C.; Waco, Tex.; Tehuantepec, Mex.
 TOWNSEND, Annals and Mag. Nat. Hist., XX, 276, etc., varieties of *formosa* and *lanipes* in Mexico.
 VAN DER WULP, Biologia, Dipt., II, 434.—Mex., several places.
mexicana MACQUART, Dipt. Exot., Suppl. I, 172.—Mex.
nigricauda BIGOT, Annales, 1876, 394.—Mex.
 BRAUER, Sitzungsbericht K. Akad., CVII, 16, note, "related to *ciliata* F."
nigripes VAN DER WULP, Tijdschr. v. Ent., XXXV, 184; Biologia, Dipt., II, 436.—Guerrero, Mex.
nitidiventris VAN DER WULP, Tijdschr. v. Ent., XXXV, 183; Biologia, Dipt., II, 435.—Atoyac, Mex.
pennipes FABRICIUS, Ent. Syst., IV, 348 (*Musca*); Syst. Antl., 219 (*Thereva hirtipes* and *pennipes*); I. c., 315 (*Ocyptera ciliata*).—Carolina; Carolina; N. A.
 WIEDEMANN, Auss. Zweifl., II, 272, 273, 274 (*pyrrhogaster*, *ciliata*, and *pennipes*).—S. A.?; S. A.; N. A.
 SAY, Jour. Acad. Sci. Phil., VI, 172; Compl. Works, II, 364 (*Phasia jugatoria*).—Indiana.
 DESVOIDY, Myodaires, 285 (*haitiensis*).—Hayti. [Roeder.]
 GIGLIO-TOS, Ditt. del Mess., III, 6, oc. in Orizaba and Cuernavaca, Mex. (*pyrrhogaster*). Also p. 7, oc. in Presidio and Orizaba, Mex. (*pennipes*).
 BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 412 (*pennipes* is the male, *ciliata* and *pyrrhogaster* the female).
 WILLISTON, Trans. Ent. Soc. Lond., 1896, 352, pl. XI, f. 100, oc. in St. Vincent, W. I.
 COQUILLETT, Revis. Tachin., 48.—Grimsby, Canada, to Mexico; Fla. to S. Cal.; bred from *Anasa tristis* DEG.
 TOWNSEND, Annals and Mag. Nat. Hist., XX, 279.—Vera Cruz, Mex.
 CHITTENDEN, Bull. 33, n. ser., Div. of Ent., 25, fig., reared from *Leptoglossus oppositus*.
 VAN DER WULP, Biologia, Dipt., II, 434, oc. Orizaba and N. Yucatan; notes.
 Guadeloupe—Wulp; Fla.—Johnson; N. J.—Smith Cat.; Porto Rico—Roeder.
phasiana TOWNSEND, Annals and Mag. Nat. Hist., XX, 282.—Vera Cruz, Mex.
pilipes FABRICIUS, Syst. Antl., 220 (*Thereva*).—S. A.
 WIEDEMANN, Auss. Zweifl., II, 272.—S. A.
 PERTY, Delectus Anim. art. Brasil., 186, pl. XXXVII, f. 5.—Brazil.
 TOWNSEND, Annals and Mag. Nat. Hist., XX, 279 (var. of *pennipes*).—Vera Cruz, Mex.
 VAN DER WULP, Biologia, Dipt., II, 437.—Mexico, several places.
plumipes FABRICIUS, Syst. Antl., 220 (*Thereva*).—Carolina.
 WIEDEMANN, Auss. Zweifl., II, 277.
 WALKER, List. IV, 697 (*histrion*).—No locality.

LOEW, Cent., IV, 90 (*trifasciata*).—Conn.

COQUILLET, Revis. Tachin., 48.—D. C.; Texas; Napa Co., Cal.; bred from *Dissostcira venusta* STAL.

N. J.—Smith Cat.; Inverness, Fla.—Johnson.

pyrrhogaster WIEDEMANN, see *pennipes*.

squamipes VAN DER WULP, Tijdschr. v. Ent., xxxv, 184; Biologia, Dipt., II, 436, pl. XIII, f. 7.—Guerrero, Mex.

subcilipes TOWNSEND, Jour. N. Y. Ent. Soc., II, 78.—San Domingo.

tegulata TOWNSEND, Annals and Mag. Nat. Hist., XIX, 29; op. cit., 439, notes.—Vera Cruz, Mex.; N. Yucatan, etc.

ACAULONA.

VAN DER WULP, Biologia, Dipt., II, 4, 1888.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 388, 1891; VI, 156, 1893.

costata VAN DER WULP, Biologia, Dipt., II, 4, pl. III, f. 1.—Orizaba, Mex.

GIGLIO-TOS, Ditt. del Mess., III, 7, oc. in Orizaba, and notes.

TOWNSEND, Annals and Mag. Nat. Hist., XIX, 29, near Vera Cruz.

HOMOGENIA.

VAN DER WULP, Tijdschr. v. Ent., xxxv, 184, 1892; Biologia, Dipt., II, 437, 1903, table of species.

TOWNSEND, Canad. Ent., xxv, 166, 1893.

latipennis VAN DER WULP, Tijdschr. v. Ent., xxxv, 184; Biologia, Dipt., II, 438, pl. XIII, f. 8.—Guerrero, Vera Cruz and Jalisco, Mex.

nigroscutellata VAN DER WULP, Tijdschr. v. Ent., xxxv, 184; Biologia, Dipt., II, 439.—Guerrero, Mex.

rufipes VAN DER WULP, Tijdschr. v. Ent., xxxv, 184; Biologia, Dipt., II, 438.—Guerrero and N. Yucatan, Mex.

GYMNOPHANIA.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 143, 1889; VI, 154, 1893.

montana COQUILLET, Revis. Tachin., 50.—White Mts., N. H.

HEMITHRIXION.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 357, 1891; VI, 157, 1893.

æstriforme BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 357.—Col.

MYIOPHASIA.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 362, 1891; VI, 170, 1893.

TOWNSEND, Trans. Amer. Ent. Soc., XVIII, 369.—Dec., 1891—(*Phasioclista*): I. c., 371 (*Ennyomma*).

COQUILLET, Revis. Tachin., 50, 1897, pt. desc.

ænea WIEDEMANN, Auss. Zweifl., II, 298 (*Tachina*).—Montevideo, S. A.

DESVOIDY, Myodaires, 288 (*Clytia atra*).—Carolina.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 362.—Montevideo, S. A., and Ga., N. A.

TOWNSEND, Trans. Amer. Ent. Soc., XVIII, 370 (*Phasioclista metallica*); p. 371 (*Ennyomma clistoides*); Canad. Ent., XXIV, 77 (*Larvia ruficornis*).

and *nigrifrons*); p. 78 (*Clytia americana*); Ent. News, III, 129 (*Lawia globosa*).—Ill. and Fla.; Ill.; Mich.; Ill.; Ill.; Fla.

COQUILLETT, Revis. Tachin., 50, syn., etc.—N. H., Mass., Ga., Fla., Col., N. M.; reared from *Balaninus nasicus* SAY, *Chalcodermus* sp., and *Conotrachelus juglandis* LEC.

WEBSTER, Ent. News, x, 53, fig., and records rearing from *Ampelogypter sesostris*, a snout-beetle making galls on the grape-vine.

N. J.—Smith Cat.; White Mts., N. H.—Slosson; Fla.—Johnson; Beulah, N. M.—Skimmer.

Note.—I examined Townsend's types, and agree with Coquillett in the synonymy.

robusta COQUILLETT, Revis. Tachin., 50.—Los Angeles Co., Cal.; bred from larva of *Sphcnophorus robustus* HORN.

MERIANIA.

DESVOIDY, Myodaires, 69, 1830.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 112, 1893.

COQUILLETT, Proc. U. S. N. M., XXV, 119, 1902, note.

chalybæa COQUILLETT, Proc. U. S. N. M., XXV, 119.—N. Idaho, several places.

PHYTO.

DESVOIDY, Myodaires, 218, 1830.

RONDANI, Dipt. Ital. Prod., IV, 140, 1861 (*Savia*).

? **americana** MACQUART, Hist. Nat. Dipt., II, 173 (*Ptilocera*).—Philadelphia.

OSTEN SACKEN, Catalogue, 155, note on genus, referring doubtfully to *Phyto*.

clesides WALKER, List, IV, 757 (*Tachina*).—N. A.

COQUILLETT, Jour. N. Y. Ent. Soc., III, 99 (*setosa*); Revis. Tachin., 51, syn. and brief desc.—N. Ill. and Mo.

nigricornis TOWNSEND, see *Lcucostoma scutillis*.

senilis TOWNSEND, see *Lcucostoma*.

MAUROMYIA.

COQUILLETT, Revis. Tachin., 51, 1897.

pulla COQUILLETT, loc. cit.—White Mts., N. H.

CRYPTOMEIGENIA.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 311, 1891.

TOWNSEND, Trans. Amer. Ent. Soc., XIX, 120, 1892 (*Emphanopteryx*).

theutis WALKER, List, IV, 778 (*Tachina*); 780 (*Tachina prisca*).—Nova Scotia.

TOWNSEND, Trans. Amer. Ent. Soc., XIX, 121 (*Emphanopteryx cumyothyroides*).—N. Y.

COQUILLETT, Revis. Tachin., 52.—Toronto, Canada; N. H., Mass., N. Y., D. C., and Ill.; bred from *Lachnosterna inversa* HORN.

N. J.—Smith Cat.; Montreal—Chagnon; Axton, N. Y.—M. and H.

MEIGENIELLA.

COQUILLETT, Proc. U. S. N. M., XXV, 104, 1902.

hinei COQUILLETT, loc. cit.—Hanging Rock, Ohio.

CERATOMYIELLA.

TOWNSEND, Trans. Amer. Ent. Soc., XVIII, 379, 1891.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 189, 1893.

- conica* TOWNSEND, Trans. Amer. Ent. Soc., XVIII, 380.—Carlinville, Ill.
COQUILLETT, Revis. Tachin., 52.—D. C., S. Ill., Ga. N. J.—Smith Cat.

LASIONA.

- VAN DER WULP, Biologia, Dipt., II, 127, 1890.
multisetosa VAN DER WULP, Biologia, Dipt., II, 128, pl. III, f. 20, 20a.—Costa Rica.

EULASIONA.

- TOWNSEND, Trans. Amer. Ent. Soc., XIX, 119, 1892.
 BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 199, 1893.
 COQUILLETT, Revis. Tachin., 52, brief desc., 1897.
comstockii TOWNSEND, Trans. Amer. Ent. Soc., XIX, 120.—Ithaca, N. Y.
 COQUILLETT, Revis. Tachin., 52.—N. Y., N. H., Ga.
setigena COQUILLETT, Revis. Tachin., 53.—Opelousas, La.
spinosa COQUILLETT, Revis. Tachin., 52.—Ft. Wrangel, Alaska.

ADMONTIA.

- BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 104, 1889; VI, 150, 1893.
 COQUILLETT, Revis. Tachin., 53, additional notes, 1897.
 VAN DER WULP, Biologia, Dipt., II, 484, 1903.
americana BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., V, 410, listed, but not described.—N. A. See VAN DER WULP, Biologia, Dipt., II, 484.
degeerioides COQUILLETT, Jour. N. Y. Ent. Soc., III, 58 (*Hypostena*); Revis. Tachin., 54.—N. H., Mass., D. C., Ill., Ga.
 Montreal—Chagnon; N. J.—Smith Cat.
demylus WALKER, List, IV, 779 (*Tachina*).—N. A.?
 COQUILLETT, Revis. Tachin., 53.—Md., D. C., Va.; bred from *Lophyrus abbotii* and *L. lecontei* FITCH. N. J.—Smith Cat.; Fla.—Johnson.
hylotomæ COQUILLETT, Canad. Ent., XXX, 233.—Wood's Hole, Mass.; bred from *Hylotoma humeralis* BEAUV.
limata COQUILLETT, Proc. U. S. N. M., XXV, 105.—Moscow, Idaho.
nasoni COQUILLETT, Jour. N. Y. Ent. Soc., III, 55; Rev. Tachin., 53.—N. Ill.
occidentalis VAN DER WULP, Tijdschr. v. Ent., XXXV, 195; Biologia, Dipt., II, 485.—Guerrero, Mex.
pergandei COQUILLETT, Jour. N. Y. Ent. Soc., III, 54; Revis. Tachin., 54.—Mass., D. C., Miss. N. J.—Smith Cat.
polita COQUILLETT, Canad. Ent., XXX, 234.—N. Y., Fla.
retiniæ COQUILLETT, Revis. Tachin., 54.—Alameda, Cal.; bred from chrysalids of *Retinia* sp.
tarsalis COQUILLETT, Canad. Ent., XXX, 234.—Opelousas, La.
unispinosa COQUILLETT, Canad. Ent., XXX, 234.—Opelousas, La.

PARADMONTIA.

- COQUILLETT, Proc. U. S. N. M., XXV, 106, 1902.
brevis COQUILLETT, loc. cit.—Biscayne Bay, Fla.

RHINOPHORA.

- DESVOIDY, Myodaires, 258, 1830.
 SCHINER, Fauna Austr., I, 545, 1862.
 VAN DER WULP, Biologia, Dipt., II, 205, 1890.
 BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 161, 1893.

laevigata VAN DER WULP, *Biologia*, Dipt., II, 205, pl. IV, f. 17, 17a.—Vera Cruz, Mex.

GIGLIO-TOS, *Ditt. del Mess.*, III, 53, oc. in Mex.

mexicana TOWNSEND, *Trans. Amer. Ent. Soc.*, XXIV, 168.—Las Cruces, N. M.

valida TOWNSEND, *Trans. Amer. Ent. Soc.*, XXIV, 167.—Las Cruces, N. M.

SARCOCLISTA.

TOWNSEND, *Trans. Amer. Ent. Soc.*, XIX, 122, 1892.

dakotensis TOWNSEND, loc. cit.—Brookings, S. D.

CLISTA.

MEIGEN, *Syst. Besch.*, VII, 208, 1838.

SCHINER, *Fauna Austr.*, I, 541, 1862.

americana TOWNSEND, see *Myiophasia anca*.

muscæformis VAN DER WULP, *Biologia*, Dipt., II, 207, pl. IV, f. 18, 18a.—Vera Cruz, Mex.

MEDINA.

DESVOIDY, *Myodaires*, 138, 1830.

MEIGEN, *Syst. Besch.*, VII, 249, 1838 (*Degeeria*).

BRAUER and BERGENSTAMM, *Zweifel. d. Kaiserl. Mus.*, IV, 106 (*Amedoria*); V, 356, syn.

VAN DER WULP, *Biologia*, Dipt., II, 150, 1890, table of Mexican spp. (*Degeeria*).

COQUILLET, *Revis. Tachin.*, 55, 1897.

albomarginata VAN DER WULP, *Biologia*, Dipt., II, 155 (*Degeeria*).—Morelos and Orizaba, Mex.

? *anthracina* BIGOT, *Annales*, 1888, 259 (*Degeeria*).—Mex.

GIGLIO-TOS, *Ditt. del Mess.*, III, 47 (id.).—Mex.

BRAUER, *Sitzungsbericht k. Akad.*, CVI, 35, notes on type, genus doubtful.

basalis VAN DER WULP, *Biologia*, Dipt., II, 152 (*Degeeria*).—Guerrero, Mex.

? *compressa* VAN DER WULP, *Biologia*, Dipt., II, 152, pl. IV, f. 9, 9a (*Degeeria*).—Guerrero and Vera Cruz, Mex.

BRAUER, *Sitzungsbericht k. Akad.*, CVI, 34, doubts generic position; probably same genus as *cora* BIGOT.

? *cora* BIGOT, *Annales*, 1888, 259 (*Degeeria*).—Mex.

BRAUER, *Sitzungsbericht k. Akad.*, CVI, 34, type redesc.; genus doubtful.

cruralis GIGLIO-TOS, *Boll. R. Univ. Torino*, VIII, No. 158, 1893; *Ditt. del Mess.*, III, 49 (both *Degeeria*).—Mex.

dicax GIGLIO-TOS, *Boll. R. Univ. Torino*, VIII, No. 158, 1893; *Ditt. del Mess.*, III, 49 (both *Degeeria*).—Mex.

hyalinipennis VAN DER WULP, *Biologia*, Dipt., II, 152 (*Degeeria*).—Guerrero, Mex.

insecta GIGLIO-TOS, *Boll. R. Univ. Torino*, VIII, No. 158, 1893; *Ditt. del Mess.*, III, 48 (both *Degeeria*).—Mex.

lateralis MACQUART (*Degeeria*), see *Metopia leucoccephala*.

leucocycla VAN DER WULP, *Biologia*, Dipt., II, 154 (*Degeeria*).—Guerrero and Vera Cruz, Mex. St. Augustine and Tick Id., Fla.—Johnson.

longifacies B. B., see *nigrifacies*.

longipes VAN DER WULP (*Degeeria*), see *nigrifacies*.

magnicornis VAN DER WULP, *Biologia*, Dipt., II, 153 (*Degeeria*).—Vera Cruz and Guerrero, Mex.

mexicana GIGLIO-TOS, *Boll. R. Univ. Torino*, VIII, No. 158, 1893; *Ditt. del Mess.*, III, 46 (both *Degeeria*).—Orizaba, Mex.

monochroma VAN DER WULP, *Biologia, Dipt.*, II, 154 (*Degeeria*).—Vera Cruz, Mex.

nervosa VAN DER WULP, *Biologia, Dipt.*, II, 155 (*Degeeria*).—Guerrero, Mex.

nigrifacies BIGOT, *Annales*, 1888, 268 (*Oplisa*).—Mex.

VAN DER WULP, *Biologia, Dipt.*, II, 155 (*Deg. longipes*); 264, synonymy. —Omilteme, Mex.

BRÄUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, v, 356, note (*Degeeria longifacies*).

nigriventris WILLISTON, *Trans. Ent. Soc. Lond.*, 1896, 359, pl. XI, f. 96 (*Degeeria*).—St. Vincent, W. I.

? **negrocostalis** VAN DER WULP, *Biologia, Dipt.*, II, 151, pl. IV, f. 10 (*Degeeria*).—Guerrero and Orizaba, Mex.

BRÄUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, VI, 183, doubt generic position.

nitidiuscula VAN DER WULP, *Biologia, Dipt.*, II, 151 (*Degeeria*).—Guerrero, Mex.

washingtonæ COQUILLETT, *Jour. N. Y. Ent. Soc.*, III, 104 (*Degeeria*); *Revis. Tachin.*, 55.—Mt. Washington, N. H.

SCHIZOTACHINA.

WALKER, *Dipt. Saund.*, 61, 1856.

convecta WALKER, *Dipt. Saund.*, 276 (*Tachina*); 277 (*Tachina exul*).—U. S. COQUILLETT, *Revis. Tachin.*, 55.—Mass., Tex., Col.

CLAUSICELLA.

RONDANI, *Dipt. Ital. Prod.*, I, 61, 1856.

BRÄUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, VI, 144, 1893 (*Argyromima*).

COQUILLETT, *Revis. Tachin.*, 55, additional desc., 1897.

johnsoni COQUILLETT, *Revis. Tachin.*, 55.—Natrona, Penn.

setigera THOMSON, *Eugenies Resa.*, 527 (*Lophosia*).—Cal.

BRÄUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, v, 408, refer to *Argyromima*.

COQUILLETT, *Jour. N. Y. Ent. Soc.*, III, 56 (*antennalis*); *Rev. Tachin.*, 56.—S. Cal. and Wyoming.

tarsalis COQUILLETT, *Jour. N. Y. Ent. Soc.*, III, 56; *Revis. Tachin.*, 56.—N. H., Md., Ill. White Mts., N. H.—Slosson.

usitata COQUILLETT, *Revis. Tachin.*, 56.—White Mts., N. H., and Mass.

NEÆRA.

DESVOIDY, *Myodaires*, 84, 1830.

BRÄUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, IV, 103, 1889; VI, 98, 1893.

longicornis COQUILLETT, *Proc. U. S. N. M.*, XXV, 106.—Oswego, N. Y.

PLECTOPS.

COQUILLETT, *Revis. Tachin.*, 57, 1897.

melissopodis COQUILLETT, loc. cit.—D. C. and Kirkwood, Mo.; bred from *Melissopus latiferræana* WLSM.

LISPIDEA.

COQUILLETT, *Jour. N. Y. Ent. Soc.*, III, 51, 1895; *Revis. Tachin.*, 51, 1897.
palpiger COQUILLETT, *Jour. N. Y. Ent. Soc.*, III, 51; *Revis. Tachin.*, 57.—Canada and N. Ill.

THRYPTOCERA.

MACQUART, Hist. Nat. Dipt., II, 87, 1835.

DESVOIDY, Annales Soc. Ent. France, 1851, 184 (*Herbstia*, preoc.).

VAN DER WULP, Biologia, Dipt., II, 127, notes, 1890.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 150, 1893; p. 187, agree with Desvoidy, Dipt. Env. Paris, I, 722, in making this a synonym of *Actia*.

americana TOWNSEND, see *Actia pilipennis*.

atripes COQUILLETT, Revis. Tachin., 58.—New Bedford, Mass.

Beulah, N. M.—Skinner.

dunningii COQUILLETT, see *Hypostena*.

flavipes COQUILLETT, Revis. Tachin., 58; Proc. Wash. Acad. Sci., II, 438, oc. in Alaska.

White Mts., N. H.

ANISIA.

VAN DER WULP, Biologia, Dipt., II, 186, 1890, def. and table of Mexican species.

aberrans VAN DER WULP, Biologia, Dipt., II, 198.—Guerrero, Mex.

accedens VAN DER WULP, Biologia, Dipt., II, 196.—Guerrero, Mex.

aegrota VAN DER WULP, Biologia, Dipt., II, 192.—Sierra de las Aguas Escondidas, Mex.

albifrons VAN DER WULP, see *Pseudodexia*.

approximata VAN DER WULP, Biologia, Dipt., II, 202.—Guerrero, Mex.

candicans VAN DER WULP, Biologia, Dipt., II, 194.—Morelos, Mex.

ciliata VAN DER WULP, Biologia, Dipt., II, 203.—Morelos, Mex.

cineraria VAN DER WULP, Biologia, Dipt., II, 189.—Guerrero, Mex.

congerens VAN DER WULP, Biologia, Dipt., II, 194.—Guerrero, Mex.

conspersa VAN DER WULP, Biologia, Dipt., II, 199.—Guerrero, Mex.

fatua VAN DER WULP, Biologia, Dipt., II, 197.—Guerrero, Mex.

fulvipennis VAN DER WULP, Biologia, Dipt., II, 190, pl. IV, f. 15, 15a.—Guerrero and Tabasco, Mex.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., V, 356, note.

gagatina VAN DER WULP, Biologia, Dipt., II, 201.—Guerrero, Mex.

inepta VAN DER WULP, Biologia, Dipt., II, 195.—Guerrero, Mex.

infima VAN DER WULP, Biologia, Dipt., II, 204.—Guerrero, Mex.

inflexa VAN DER WULP, Biologia, Dipt., II, 188.—Guerrero, Mex.

intrusa VAN DER WULP, Biologia, Dipt., II, 193.—Guerrero, Mex.

macroptera VAN DER WULP, Biologia, Dipt., II, 198.—Mexico City.

misella VAN DER WULP, Biologia, Dipt., II, 204.—Guerrero, Mex.

morionella VAN DER WULP, Biologia, Dipt., II, 195.—Guerrero, Mex.

mucorea VAN DER WULP, Biologia, Dipt., II, 199.—Guerrero and Morelos, Mex.

neglecta VAN DER WULP, Biologia, Dipt., II, 191.—Guerrero, Mex.

nigella VAN DER WULP, Biologia, Dipt., II, 193.—Tabasco, Mex.

GIGLIO-TOS, Ditt. del Mess., III, 51, note.—Mex.

nigrithorax VAN DER WULP, Biologia, Dipt., II, 197.—Vera Cruz and Tabasco, Mex.

nigrocincta VAN DER WULP, Biologia, Dipt., II, 201.—Guerrero, Mex.

niveomarginata VAN DER WULP, Biologia, Dipt., II, 200.—Guerrero, Mex.

obscurifrons VAN DER WULP, Biologia, Dipt., II, 197.—Tabasco, Mex.

opaca VAN DER WULP, Biologia, Dipt., II, 200.—Guerrero, Mex.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., V, 356, "related to *Gymnostylia*."

GIGLIO-TOS, Ditt. del Mess., III, 52, oc. at Coscom, Mex.
ophthalmica VAN DER WULP, Biologia, Dipt., II, 203.—Guerrero, Mex.
pallidipalpis VAN DER WULP, Biologia, Dipt., II, 190.—Tabasco, Mex.
palposa VAN DER WULP, Biologia, Dipt., II, 202.—Vera Cruz, Mex.
peregrina VAN DER WULP, Biologia, Dipt., II, 196.—Guerrero, Mex.
pulicaria VAN DER WULP, Biologia, Dipt., II, 191.—Orizaba, Mex.
pullata VAN DER WULP, Biologia, Dipt., II, 195.—Guerrero, Mex.
remissa VAN DER WULP, Biologia, Dipt., II, 201.—Guerrero, Mex.
rubripes VAN DER WULP, Biologia, Dipt., II, 189.—Vera Cruz, Mex.
ruficoxa VAN DER WULP, Biologia, Dipt., II, 190.—Tabasco, Mex.
signata VAN DER WULP, Biologia, Dipt., II, 193.—Vera Cruz, Mex.
similis VAN DER WULP, Biologia, Dipt., II, 203.—Guerrero, Mex.
stolidula VAN DER WULP, Biologia, Dipt., II, 192.—Guerrero, Mex.
triflata VAN DER WULP, Biologia, Dipt., II, 192.—Guerrero, Mex.
umbriana VAN DER WULP, Biologia, Dipt., II, 200.—Tabasco, Mex.
vanderwulpi TOWNSEND, Ent. News, III, 81.—Jamaica.

EURYCEROMYIA.

TOWNSEND, Trans. Amer. Ent. Soc., XIX, 115, 1892.
 BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 198, 1893.
robertsonii TOWNSEND, Trans. Amer. Ent. Soc., XIX, 115.—S. Ill.

SPHÆRINA.

VAN DER WULP, Biologia, Dipt., II, 205, 1890.
nitidula VAN DER WULP, loc. cit., pl. IV, f. 16, 16a.—Tabasco, Mex.

ACTIA.

DESVOIDY, Myodaires, 85 and 86 (*Actia* and *Ceromya*), 1830.
 BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 103, 1889 (*Gymnopaeria*); VI, 226 and 228, syn., 1893.
 COQUILLETT, Revis. Tachin., 58, note, 1897.
palloris COQUILLETT, Jour. N. Y. Ent. Soc., III, 50 (*Lasioncura*); Revis. Tachin., 58.—White Mts., N. H.
pilipennis FALLÉN, Dipt. Suec., Muscides, 18, 1820 (*Tachina*).—Europe.
 MEIGEN, Syst. Besch., IV, 352 (*Tachina*).
 SCHINER, Fauna Austr., I, 518 (*Thryptocera*).
 ZETTERSTEDT, Dipt. Scand., III, 1045 (*Tachina*).
 TOWNSEND, Canad. Ent., XXIV, 69 (*Thryptocera americana*).—D. C.
 COQUILLETT, Revis. Tachin., 59.—White Mts., N. H.; D. C.; So. Ill.; Germany.
 N. J.—Smith Cat.

LASIONEURA.

COQUILLETT, Jour. N. Y. Ent. Soc., III, 50, 1895.
johnsoni COQUILLETT, Jour. N. Y. Ent. Soc., III, 50; Revis. Tachin., 59.—Santa Cruz Co., Cal.; Wash.
 Beulah, N. M.—Skinner.
palloris COQUILLETT, see *Actia*.

CHÆTOPHLEPS.

COQUILLETT, Jour. N. Y. Ent. Soc., III, 51, 1895.
nebulosa COQUILLETT, of Smith's New Jersey Catalogue, probably refers to *Sciisma nebulosa*, q. v.

- polita** COQUILLET, Proc. U. S. N. M., xxv, 107.—Brookings, S. D.
rostrata COQUILLET, Canad. Ent., xxx, 235.—Biscayne Bay, Fla., and Opelousas, La.
setosa COQUILLET, Jour. N. Y. Ent. Soc., iii, 51; Revis. Tachin., 59.—Mass., Md., D. C.

CELATORIA.

- COQUILLET, Insect Life, ii, 235, 1890; Psyche, 1895, 251.
 BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., vi, 189, 1893.
diabroticæ SHIMER, Amer. Naturalist, v, 219 (*Melanosphora*). Bred from *Diabrotica vittata* FABR.
 COQUILLET, Insect Life, ii, 235 (*crawii*), bred from adult *Diabrotica soror* LEC. at Los Angeles, Cal.; Revis. Tachin., 59, bred from *Diabrotica duodecimpunctata* OLIV., and *D. vittata* FABR.—D. C., Texas, Cal.
spinosa COQUILLET, Revis. Tachin., 60.—N. H., S. Cal., Idaho, Mich.
 N. J.—Smith Cat.

POLYGASTER.

- VAN DER WULP, Biologia, Dipt., ii, 139, 1890.
egregia VAN DER WULP, loc. cit., pl. iv, f. 3, 3a.—Tabasco, Mex.

HYPOSTENA.

- MEIGEN, Syst. Besch., vii, 239, 1838.
 SCHINER, Fauna Austr., i, 537, 1862.
 VAN DER WULP, Biologia, Dipt., ii, 140, table of Mexican species, 1890.
 BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 374, 1891; vi, 151, 1893 (*Gymnostylia*, pt.).
 TOWNSEND, Trans. Amer. Ent. Soc., xix, 130, 1892 (*Tachinophyto* and *Pseudomyothyrta*).
abbreviata BIGOT, Annales, 1888, 262 (*Ceromasia*).—Mex.
 BRAUER, Sitzungsbericht k. Akad., cvi, 16, gen. ref., from type.
ænea COQUILLET, Jour. N. Y. Ent. Soc., iii, 57; Revis. Tachin., 62.—Los Angeles Co., Cal.
albocingulata VAN DER WULP, Biologia, Dipt., ii, 148.—Costa Rica.
albopicta BIGOT, Annales, 1888, 258 (*Chatolyga*).—Mex.
 BRAUER, Sitzungsbericht k. Akad., cvi, 23, gen. ref., from type (*Gymnostylia*).
barbata COQUILLET, Jour. N. Y. Ent. Soc., iii, 57 and 58 (the latter as *pusilla*); Revis. Tachin., 62.—White Mts., N. H., to Allende, Mex.; Ga. to Wash.; reared from *Coptocycla clavata* FABR. and *Disonychia xanthomelana* DALM.
 Axton, N. Y.—M. and H.
blandita VAN DER WULP, see *triangulifera*.
concinna VAN DER WULP, Biologia, Dipt., ii, 142.—Guerrero, Mex.
 GIGLIO-TOS, Ditt. del Mess., iii, 51, note.—Mex.
cylindriventris VAN DER WULP, Biologia, Dipt., ii, 145.—Guerrero, Mex.
degeerioides COQUILLET, see *Admontia*.
deplanata VAN DER WULP, Biologia, Dipt., ii, 147.—Costa Rica.
dunningii COQUILLET, Jour. N. Y. Ent. Soc., iii, 54 (*Thryptocera*); Revis. Tachin., 60.—Canada, Mass., Conn., D. C., N. C., N. Ill.
 N. J.—Smith Cat.
elegans VAN DER WULP, Biologia, Dipt., ii, 143.—Guerrero, Mex.
flaveola COQUILLET, Revis. Tachin., 61.—Franconia, N. H.; N. C.
 N. J.—Smith Cat.

- flavocalyptrata** VAN DER WULP, *Biologia*, Dipt., II, 147, pl. IV, f. 8.—Costa Rica.
- floridensis** TOWNSEND, *Trans. Amer. Ent. Soc.*, XIX, 131 (*Tachinophyto*).—Fla.
COQUILLET, *Revis. Tachin.*, 62.—N. H., D. C., Va., N. C., Ga., Miss., Fla., Jamaica, N. Ill.; reared from *Blastobasis nubilella* ZELL. and *Schizocera ebena* NORTON. N. J.—Smith Cat.
- gilvipes** COQUILLET, *Revis. Tachin.*, 61.—Mass., N. J., Ga.
- immunda** VAN DER WULP, *Biologia*, Dipt., II, 148.—Vera Cruz and Tabasco, Mex.
- indecisa** TOWNSEND, *Trans. Amer. Ent. Soc.*, XIX, 132 (*Pseudomyoethyria*).—Ill.
COQUILLET, *Revis. Tachin.*, 62, places this as a synonym of *floridensis*; an examination of the types of both convinces me that they are distinct.
- Inverness, Fla.—Johnson.
- leucophæa** VAN DER WULP, *Biologia*, Dipt., II, 141.—Guerrero, Mex.
- maculosa** COQUILLET, *Proc. Acad. Nat. Sci.*, 1895, 313; *Revis. Tachin.*, 63.—St. Augustine, Fla.
- melaleuca** VAN DER WULP, *Biologia*, Dipt., II, 145, pl. IV, f. 6.—Tabasco, Mex.
- minima** VAN DER WULP, *Biologia*, Dipt., II, 148.—Tabasco, Mex.
- nigripalpis** BIGOT, *Annales*, 1888, 259 (*Chatolyga*).—Mex.
BRAUER, *Sitzungsbericht k. Akad.*, CVI, 21, refers to *Gymnostylia*, from type.
- nitens** COQUILLET, *Revis. Tachin.*, 63.—Biscayne Bay, Fla.
- nubilosa** VAN DER WULP, *Biologia*, Dipt., II, 149.—Guerrero, Mex.
- obumbrata** VAN DER WULP, *Biologia*, Dipt., II, 143.—Guerrero and Vera Cruz, Mex.
BRAUER and BERGENSTAMM, *Zweifel. d. Kaiserl. Mus.*, v, 375, make this the type of a new genus, *Ptilodegceria*; VI, 133, same is referred to the *Deriidae*.
- pedestris** WALKER, *Dipt. Saund.*, 313 (*Deria*).—U. S.
COQUILLET, *Revis. Tachin.*, 61.—S. Cal.
Note.—The *Masicera cucrata* of Bigot, referred here by Coquillett, will be found in *Leskia*.
- pictigaster** BIGOT, *Annales*, 1888, 261 (*Ceromasia*).—Mex.
BRAUER, *Sitzungsbericht k. Akad.*, CVI, 15, refers to *Gymnostylia*, from type.
- pilosa** VAN DER WULP, *Biologia*, Dipt., II, 144, pl. IV, f. 7.—Guerrero and Morelos, Mex.
- quadristriata** VAN DER WULP, *Biologia*, Dipt., II, pl. IV, f. 5, 5a.—Costa Rica.
- quadrivittata** BIGOT, *Annales*, 1888, 261 (*Ceromasia*).—Mex.
BRAUER, *Sitzungsbericht k. Akad.*, CVI, 16, gen. ref., from type.
- setinervis** COQUILLET, *Canad. Ent.*, XXX, 236.—Biscayne Bay, Fla.
- spinipes** BIGOT, *Annales*, 1888, 262 (*Ceromasia*).—Mex.
BRAUER, *Sitzungsbericht k. Akad.*, CVI, 16, note; gen. ref., from type.
- strigosa** VAN DER WULP, *Biologia*, Dipt., II, 146.—Tabasco, Mex.
- subtilis** VAN DER WULP, *Biologia*, Dipt., II, 149.—Guerrero, Mex.
- tortricis** COQUILLET, *Jour. N. Y. Ent. Soc.*, III, 55 (*Pseudomyoethyria*); *Revis. Tachin.*, 60.—N. J., S. Cal., Ida.; bred from a Tortricid on *Solanum*.
Beulah, N. M.—Skinner.
- triangulifera** BIGOT, *Annales*, 1888, 268 (*Homoderia*).—Mex.
VAN DER WULP, *Biologia*, Dipt., II, 142, pl. IV, f. 4 (*blandita*); 264, syn.—Guerrero and Orizaba in Mex.; Costa Rica.
- GIGLIO-TOS, *Ditt. del Mess.*, III, 51, note.—Mex.
- turbinata** VAN DER WULP, *Biologia*, Dipt., II, 146.—Vera Cruz, Mex.

umbripennis VAN DER WULP, *Biologia*, Dipt., II, 144.—Tabasco, Mex.

vanderwulpi TOWNSEND, *Ent. News*, III, 131 (*Myiothyria*).—S. Fla.

COQUILLETT, *Revis. Tachin.*, 63.—S. Cal., S. Fla. Also *Proc. U. S. N. M.*, XXII, 254, oc. in Porto Rico. Inverness, Fla.—Johnson.

variabilis COQUILLETT, *Jour. N. Y. Ent. Soc.*, III, 57; *Revis. Tachin.*, 62.—N. H. to S. Cal.; bred from *Carpocapsa pomonella* LINN., *Pyrausta penitalis* GR., and a Tenthredinid. Montreal—Chagnon.

DIDYMA.

VAN DER WULP, *Biologia*, Dipt., II, 156, 1890, def. and table of Mexican species.

BRÄUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, v, 337, is a mixture of genera, according to their standards.

COQUILLETT, *Revis. Tachin.*, 63, notes, 1897.

albomicans VAN DER WULP, *Biologia*, Dipt., II, 162.—Orizaba and Guerrero, Mex.

BRÄUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, v, 337; VI, 118, notes.

ambulatrix VAN DER WULP, *Biologia*, Dipt., II, 158.—Guerrero, Mex.

basilaris VAN DER WULP, *Biologia*, Dipt., II, 159.—Guerrero, Mex.

calyptrata WILLISTON, *Trans. Ent. Soc. Lond.*, 1896, 359, pl. XI, f. 95.—St. Vincent, W. I.

commixta VAN DER WULP, *Biologia*, Dipt., II, 163.—Tabasco, Mex.

BRÄUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, v, 402; VI, 122, refer to *Mesochata* (mentioned as *commixa*).

exigua VAN DER WULP, *Biologia*, Dipt., II, 160.—Guerrero, Mex.

COQUILLETT, *Revis. Tachin.*, 63.—Kirkwood, Mo.

fuliginipennis VAN DER WULP, *Biologia*, Dipt., II, 164.—Guerrero, Mex.

inconspicua VAN DER WULP, *Biologia*, Dipt., II, 163.—Guerrero, Mex.

COQUILLETT, *Revis. Tachin.*, 63.—Fla.

modesta VAN DER WULP, *Biologia*, Dipt., II, 160.—Guerrero, Mex.

moesta VAN DER WULP, see *Myiopharus metopia*.

nigricolor VAN DER WULP, *Biologia*, Dipt., II, 158.—Vera Cruz and Tabasco, Mex.; Costa Rica.

otiosa VAN DER WULP, *Biologia*, Dipt., II, 159.—Guerrero, Mex.

pavida VAN DER WULP, *Biologia*, Dipt., II, 165.—Guerrero, Mex.

prompta VAN DER WULP, *Biologia*, Dipt., II, 161.—Guerrero, Mex.

pullula VAN DER WULP, *Biologia*, Dipt., II, 162.—Guerrero, Mex.

COQUILLETT, *Proc. Wash. Acad. Sci.*, II, 438, oc. in Alaska.

timida VAN DER WULP, *Biologia*, Dipt., II, 161.—Guerrero, Mex.

COQUILLETT, *Revis. Tachin.*, 63.—D. C.

vagabunda VAN DER WULP, *Biologia*, Dipt., II, 161.—Guerrero, Mex.

validinervis VAN DER WULP, see *Paradidyma*.

volucris VAN DER WULP, *Biologia*, Dipt., II, 165.—Guerrero, Mex.

MACQUARTIA.

DESVOIDY, *Myodaires*, 204, 207, 209 (*Macquartia*, *Amedea*, and *Albinia*), 1830.

MACQUART, *Dipt. Exot.*, Suppl., I, 168, 1846 (*Aporia*).

VAN DER WULP, *Biologia*, Dipt., II, 128, 1890, def. and table of Mexican species.

COQUILLETT, *Revis. Tachin.*, 64, 1897.

acuminata VAN DER WULP, *Biologia*, Dipt., II, 130.—Guerrero, Mex.

atrifrons BIGOT, Annales, 1888, 259.—Mex.

caloptera BIGOT, Annales, 1888, 263 (*Tricholyga*).—Mex.

 BRAUER, Sitzungsbericht k. Akad., cvi, 24, notes on type; refers to *Aporia*.
elegans GIGLIO-TOS, Boll. R. Univ. Torino, viii, No. 147, 1893; Ditt. del Mess.,
 iii, 66, f. 15 (both *Aporia*).—Tuxpango, Mex.

johnsoni TOWNSEND, see *Hyalurgus*.

pristis WALKER, List, iv, 841 (*Deria*).—Mass.

 TOWNSEND, Psyche, vi, 275 (*Aporia limacodis*).—N. Y.; bred from *Lima-*
codes sp.

 COQUILLETT, Revis. Tachin., 64.—N. H., Mass., D. C., Oreg., Cal.; bred
 from *Halisidota argentata* PACK.

 N. J.—Smith Cat.

setiventris VAN DER WULP, Biologia, Dipt., ii, 129, pl. iii, f. 21, 21a.—Guerrero
 and Orizaba, Mex.

 GIGLIO-TOS, Ditt. del Mess., iii, 50, note.—Solco, Mex.

venusta VAN DER WULP, Biologia, Dipt., ii, 130.—Guerrero, Mex.

versicolor VAN DER WULP, Biologia, Dipt., ii, 130.—Guerrero, Mex.

HYALURGUS.

 BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., vi, 136, 1893.

johnsoni TOWNSEND, Canad. Ent., xxiv, 81 (*Macquartia*).—Pa.

 COQUILLETT, Revis. Tachin., 64.—Ill., Pa.

POLIDEA.

 MACQUART, Annales Soc. Ent. France, 1848, 92.

 MEIGEN, Syst. Besch., vii, 260, 1838 (*Harrisia*, preoc.).

 RONDANI, Atti Soc. Ital. Sci. Nat., viii, 35, 1865 (*Somolaja*).

 COQUILLETT, Revis. Tachin., 64, 1897.

americana TOWNSEND, Canad. Ent., xxiv, 78 (*Tryphera*).—Ill.

✧ *areos* WALKER, List, iv, 766 (*Tachina*).—N. A.

 TOWNSEND, Canad. Ent., xxiv, 79 (*Tryphera polidoides*); 82 (*Pol. ameri-*
cana).—N. Y.; Mich.

 COQUILLETT, Revis. Tachin., 65.—Georgetown, Canada; N. H. to S. Cal.
 Montreal—Chagnon.

Note.—Coquillett makes Townsend's *Tryphera americana* a synonym of
 this also. I was able to ascertain from the types that Townsend's *Try-*
phera americana is not identical with his *Polidea americana*, hence I
 separate the former from *areos*.

HYPOCHÆTA.

 BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., iv, 93, 1889.

longicornis SCHINER, Fauna Austr., i, 527 (*Frivaldskia*).—Europe.

 COQUILLETT, Revis. Tachin., 65, and footnote.—White Mts., N. H.
 N. J.—Smith Cat.

PARAHYPCHÆTA.

 BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 337, 1891.

heteroneura BRAUER and BERGENSTAMM, loc. cit.; vi, 117.—N. A.

METADORIA.

 BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., vi, 117, 208, 1893.

barbata BIGOT, Annales, 1888, 260 (*Phorocera barbata*, and *melanocops*).—Mex.

 BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., vi, 117, 208 (*mexi-*
cana).—Mex.

BRAUER, Sitzungsbericht k. Akad., CVI, 19, syn.

VAN DER WULP, Biologia, Dipt., II, 79 (*Phorocera atriceps*); 483, syn. with *melanoceps*, from Bigot's type.—Guerrero and Orizaba, Mex.

PELATACHINA.

MEADE, Ent. Mo. Mag., XXX, 109, 1894.

DESVOIDY, Dipt. Env. de Paris, 1100, 1863 (*Myria*, preoc.).

limata COQUILLETT, Proc. U. S. N. M., XXV, 107.—Lewiston, Idaho.

pellucida COQUILLETT, Revis. Tachin., 65.—N. A.

RACODINEURA.

RONDANI, Dipt. Ital. Prod., IV, 31, 1861.

DESVOIDY, Myodaires, 145, 1830 (*Raxelia*, preoc.).

americana COQUILLETT, Revis. Tachin., 66.—Tifton, Ga.

ERVIA.

DESVOIDY, Myodaires, 225, 1830.

MACQUART, Dipt. Exot., II, 3, 74, 1843.

triquetra OLIVIER, Encycl. Méthodique, VIII, 423 (*Ocyptera*).—Carolina.

COQUILLETT, Revis. Tachin., 66.—Miss., Texas.

LESKIA.

DESVOIDY, Myodaires, 100, 1830; loc. cit., 98 (*Myobia*, preoc.); Annales Soc. Ent. France, 1848, 461 (*Solienia*); 474 (*Orillia*).

RONDANI, Dipt. Ital. Prod., v. 8, 1861 (*Anthoica*); 48 (*Pyrrosia*).

VAN DER WULP, Biologia, Dipt., II, 132, 1890, notes and table of Mexican species (*Myobia*).

TOWNSEND, Trans. Amer. Ent. Soc., XXII, 75, 1895 (*Myobia*).

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 140, 191, 1893 (*Myobia*).

COQUILLETT, Revis. Tachin., 66, 1897, syn. and notes.

See also *Calodexia*.

analis SAY, Jour. Acad. Sci. Phil., VI, 177; Compl. Works, II, 366 (*Dexia*).—Ind.

COQUILLETT, Proc. Acad. Nat. Sci. Phil., 1895, 313 (*Myobia depile*); Revis. Tachin., 67.—Fla., N. Y., Mass., Kans.

N. J.—Smith Cat.; Fla.—Johnson.

angulata VAN DER WULP, Biologia, Dipt., II, 136 (*Myobia*).—Guerrero, Mex.

argenteiceps VAN DER WULP, Biologia, Dipt., II, 135 (*Myobia*).—Guerrero, Mex.

diadema WIEDEMANN, Auss. Zweifl., II, 382 (*Dexia*).—Brazil.

VAN DER WULP, Biologia, Dipt., II, 137, pl. IV, f. 2 (*Myobia*).—Mexico, several places; Costa Rica.

TOWNSEND, Trans. Amer. Ent. Soc., XXII, 76, oc. at Ithaca, N. Y. (*Myobia*); Canad. Ent., XXIV, 70, note (id.).

eucrata BIGOT, Annales, 1888, 263 (*Masicra*).—Cal.

COQUILLETT, Revis. Tachin., 61, refers to *Hypostena pedestris*.

BRAUER, Sitzungsbericht k. Akad., CVI, 12, refers to *Myobia*, from type.

flavicornis VAN DER WULP, Biologia, Dipt., II, 133, pl. IV, f. 11 (*Myobia*).—Tabasco, Mex.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 376; VI, 131, notes.

GIGLIO-TOS, Ditt. del Mess., III, 50, note (*Myobia*).—Mex.

flavipennis WIEDEMANN, see *Stomatodexia*.

- gilensis* TOWNSEND, *Psyche*, 1897, 40 (*Myobia*).—Gila R., N. M.
grata VAN DER WULP, *Biologia*, Dipt., II, 134 (*Myobia*).—Guerrero, Mex.
lepida VAN DER WULP, *Biologia*, Dipt., II, 135 (*Myobia*).—Guerrero, Mex.
longipalpis VAN DER WULP, *Biologia*, Dipt., II, 138 (*Myobia*).—Guerrero, Mex.
opima VAN DER WULP, *Biologia*, Dipt., II, 136 (*Myobia*).—Guerrero and Morelos, Mex.
? rufopygata BIGOT, *Annales*, 1888, 262 (*? Fiviana*).—Mex.
 BRAUER, *Sitzungsbericht k. Akad.*, CVI, 7, redesc. type; gen. ref. with a doubt.
scurra VAN DER WULP, *Biologia*, Dipt., II, 134 (*Myobia*).—Guerrero, Mex.
succincta VAN DER WULP, *Biologia*, Dipt., II, 133 (*Myobia*).—Guerrero, Mex.
thecata COQUILLET, *Jour. N. Y. Ent. Soc.*, III, 105 (*Myobia*); *Revis. Tachin.*, 67.—Bucks and Delaware Cos., Pa. N. J.—Smith Cat.

LESKIOMIMA.

- BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, v, 372, 1891; VI, 133, 1893.
tenera WIEDEMANN, *Auss. Zweifl.*, II, 251 (*Stomoxys*).—No locality.
 BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, VI, 133, pt. desc.—N. A.
 COQUILLET, *Revis. Tachin.*, 67.—N. H., N. Y., Pa., Va., N. C., Fla.; reared from a *Pyralid*.
 N. J.—Smith Cat.

APINOPS.

- COQUILLET, *Revis. Tachin.*, 67, 1897.
atra COQUILLET, *Revis. Tachin.*, 67.—S. Ill.

PSEUDAPINOPS.

- COQUILLET, *Proc. U. S. N. M.*, XXV, 108, 1902.
nigra COQUILLET, loc. cit.—Moscow, Idaho.

EUMYOTHYRIA.

- TOWNSEND, *Trans. Amer. Ent. Soc.*, XIX, 121, 1892.
 BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, VI, 199, 1892
illinoisensis TOWNSEND, *Trans. Amer. Ent. Soc.*, XIX, 121.—Ill.

LEUCOSTOMA.

- MEIGEN, *Illig. Mag.*, II, 280, 1803.
 DESVOIDY, *Myodaires*, 255, 1830 (*Clidia*).
 RONDANI, *Dipt. Ital. Prod.*, I, 76, 1856 (*Psalida*).
 SCHINER, *Fauna Austr.*, I, 542, 1862.
 VAN DER WULP, *Biologia*, Dipt., II, 205, 1890.
 COQUILLET, *Revis. Tachin.*, 68, 1897, syn.
? analis MEIGEN, *Syst. Besch.*, IV, 290 (*Tachina analis* and *tetraptera*).—Europe.
 SCHINER, *Fauna Austr.*, I, 543.—Austria.
 VAN DER WULP, *Biologia*, Dipt., II, 206, doubtfully identified from Guerrero, Mex.
atra TOWNSEND, *Trans. Amer. Ent. Soc.*, XVIII, 380.—Carlinville, Ill.
 COQUILLET, *Revis. Tachin.*, 69.—N. H., Mass., N. Ill.
gravipes VAN DER WULP, *Biologia*, Dipt., II, 207.—Guerrero, Mex.
? neomexicana TOWNSEND, *Canad. Ent.*, XXIV, 169.—Las Cruces, N. M.

Note.—Coquillett, in his Revision, puts this as a synonym of *senilis*; but he has since changed this in Proc. U. S. N. M., xxv, 109. From the types, I thought them hardly of the same genus, hence the interrogation.

senilis TOWNSEND, Canad. Ent., xxiv, 81 (*Phyto*); 170 (*Phyto nigricornis*).—N. Y.; Las Cruces, N. M.

COQUILLET, Revis. Tachin., 69.—Md., Ga., N. M., Col., Wash.

N. J.—Smith Cat.

See note under *neomexicana*.

subopaca COQUILLET, Revis. Tachin., 68.—Clementon, N. J.

SCIASMA.

COQUILLET, Revis. Tachin., 69, 1897.

nebulosa COQUILLET, loc. cit.—Mass., N. J., Ga.

HYALOMYODES.

TOWNSEND, Psyche, 1893, 429.

dorsalis COQUILLET, Proc. U. S. N. M., xxv, 108.—Moscow, Idaho.

triangulifera LOEW, Cent., iv, 85 (*Hyalomyia*).—N. Y.

TOWNSEND, Psyche, 1893, 429 (*wecepii*).—N. H., Pa.

COQUILLET, Revis. Tachin., 70.—N. H., Mass., Pa., Ga., Col. Also in Proc. U. S. N. M., xxv, 109, female desc.

CESTROPHASIA.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., iv, 145, 1889; loc. cit., 146 (*Phasiopteryx*); vi, 159, 1893 (id.).

VAN DER WULP, Biologia, Dipt., ii, 165, 1890 (*Neoptera*); loc. cit., 166 (*Cenosoma*).

TOWNSEND, Trans. Amer. Ent. Soc., xix, 133, 1892 (*Euocestrophia*).

COQUILLET, Revis. Tachin., 70, syn., etc., 1897.

bilimekii BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., iv, 147 (*Phasiopteryx*).—Orizaba, Mex.

VAN DER WULP, Biologia, Dipt., ii, 166, pl. iv, f. 11, 12 (*Neoptera rufa*).—Vera Cruz and Tabasco, Mex. [B. B.]

GIGLIO-TOS, Ditt. del Mess., iii, 52, identifies this with *ochracea* BIGOT; but Brauer's study of the type of the latter indicates the contrary.

TOWNSEND, Proc. Cal. Acad. Sci., iv, 619, doubtfully identified from Lower Cal.; Annals and Mag. Nat. Hist., xix, 33, oc. at Vera Cruz, and notes.

COQUILLET, Revis. Tachin., 71.—Texas.

Georgiana, Fla.—Johnson.

calva COQUILLET, Proc. U. S. N. M., xxv, 109.—Williams, Ariz.; Ottawa, Canada.

clausa BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., iv, 145.—Col. Also op. cit., vi, 158.

GIGLIO-TOS, Ditt. del Mess., iii, 52, note.—Cuautla, Mex.

COQUILLET, Revis. Tachin., 70.—Tewksbury, Mass., and Veta Pass, Col. N. J.—Smith Cat.; Ormond, Fla.—Johnson.

ochracea BIGOT, Annales, 268, 1888 (*Pyrrisia*).—Mex.

COQUILLET, Rev. Tachin., 71.—Ga., Texas, Col.

BRAUER, Sitzungsbericht k. Akad., cvi, 42, refers to *Phasiopteryx*, from type.

N. J.—Smith Cat.

- punctata** COQUILLETT, Jour. N. Y. Ent. Soc., III, 52 (*Clytiomyia*); Revis. Tachin., 71.—Charlotte Harbor, Fla.
setosa COQUILLETT, Proc. U. S. N. M., XXV, 110.—Col.
signifera VAN DER WULP, Biologia, Dipt., II, 167 (*Cenosoma*).—Guerrero and Vera Cruz, Mex.
 BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 159, note.
 COQUILLETT, Revis. Tachin., 70.—Toronto, Can.; N. H., Pa., Fla.
 N. J.—Smith Cat.

CLYTIOMYIA.

- RONDANI, Dipt. Ital. Prod., IV, 9, 1861.
 DESVOIDY, Myodaires, 287, 1830 (*Clytia*, preoc.).
 TOWNSEND, Canad. Ent., XXIV, 79, 1892 (*Clistomorpha*).
 COQUILLETT, Revis. Tachin., 71, 1897, notes.
atrata COQUILLETT, Jour. N. Y. Ent. Soc., III, 53; Revis. Tachin., 71.—Wash.
didyma LOEW, Cent., IV, 86 (*Xysta*).—Ill.
 TOWNSEND, Canad. Ent., XXIV, 79 (*Clistomorpha hyalomoides*).—N. Y.
 COQUILLETT, Canad. Ent., XXX, 233, syn.
exilis COQUILLETT, see *Eutrixa masuria*.
flava TOWNSEND, Trans. Amer. Ent. Soc., XVIII, 372 (*Clytia*).—Carlinville, Ill.
 COQUILLETT, Revis. Tachin., 71.—N. H., Miss.
ochracea GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 158, 1893; Ditt. del Mess., III, 53 (both *Clistomorpha*).—Mex.
punctata COQUILLETT, see *Æstrophasia*.

DIONÆA.

- DESVOIDY, Myodaires, 254, 1830.
 MACQUART, Dipt. du Nord France, 109, 1834 (*Labidigaster*).
 VAN DER WULP, Biologia, Dipt., II, 131, 1890 (*Labidigaster*).
 BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 155, 1893 (id.).
 COQUILLETT, Canad. Ent., XXX, 234, syn., etc., 1898.
furcata VAN DER WULP, Biologia, Dipt., II, 131, pl. III, f. 22 (*Labidigaster*).—Vera Cruz, Mex.
nitoris COQUILLETT, Canad. Ent., XXX, 235.—Corvallis, Ore.

TRIXA.

- MEIGEN, Syst. Besch., IV, 222, 1824.
 SCHINER, Fauna Austr., I, 445, 1862.
 VAN DER WULP, Biologia, Dipt., II, 87, 1890.
differens VAN DER WULP, Biologia, Dipt., II, 88.—Guerrero, Mex.
gillettei TOWNSEND, see *Paraphyto*.
obsoleta VAN DER WULP, Biologia, Dipt., II, 87.—Guerrero, Mex.
 BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., V, 416, would refer to *Macronychia*.

EUTRIXA.

- COQUILLETT, Revis. Tachin., 72, 1897.
masuria WALKER, List, IV, 753 (*Tachina*).—N. A.
 COQUILLETT, Jour. N. Y. Ent. Soc., III, 53 (*Clytiomyia exile*); Revis. Tachin., 72.—N. H., Md., D. C.; bred from *Lachnosterna arcuata* SMITH.

XANTHOMELANA.

- VAN DER WULP, Tijdschr. v. Ent., XXXV, 188, 1892; Biologia, Dipt., II, 451, def. and table of species, 1903.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., vi, 156, 1893.

TOWNSEND, Canad. Ent., xxv, 167, 1893, note.

COQUILLETT, Revis. Tachin., 72, 1897.

anceps VAN DER WULP, Tijdschr. v. Ent., xxxv, 189; Biologia, Dipt., ii, 453, pl. xiii, f. 15.—Vera Cruz, Mex.

arcuata SAY, Jour. Acad. Sci. Phil., vi, 173; Compl. Works, ii, 363 (*Ocyptera*).—Ind.

BIGOT, Annales, 1888, 254 (*Stevenia pictipes*).—Wash.

TOWNSEND, Proc. Ent. Soc. Wash., ii, 142 (*Wahlbergia*); Annals and Mag. Nat. Hist., xx, 285, oc. at Vera Cruz.

COQUILLETT, Revis. Tachin., 73.—Col., S. Cal., Kans.

articulata VAN DER WULP, Tijdschr. v. Ent., xxxv, 188; Biologia, Dipt., ii, 452, pl. xiii, f. 13.—Vera Cruz and Orizaba, Mex.

GIGLIO-TOS, Ditt. del Mess., iii, 4, f. 12.—Orizaba, Mex.

atripennis SAY, Jour. Acad. Sci. Phil., vi, 172; Compl. Works, ii, 363 (*Phasia*).—Ind.

WALKER, List, iv, 797 (*Tachina corythus*).—Ga.

GIRSCHNER, Zeitsch. f. Naturwiss., LX, 1887, sep. p. 38, refers to subg. *Paralophora*.

? TOWNSEND, Proc. Ent. Soc. Wash., ii, 145 (*Wahlbergia*).—Va.

COQUILLETT, Revis. Tachin., 73.—N. Va., Ind.

Inverness and St. Augustine, Fla.—Johnson.

dorsalis VAN DER WULP, Tijdschr. v. Ent., xxxv, 188; Biologia, Dipt., ii, 453.—Guerrero and Vera Cruz, Mex.

flavipes COQUILLETT, Revis. Tachin., 72.—Horse Neck Beach, Mass.

gracilentia VAN DER WULP, Tijdschr. v. Ent., xxxv, 189; Biologia, Dipt., ii, 454, pl. xiii, f. 14.—Guerrero, Mex.

rubicunda VAN DER WULP, Tijdschr. v. Ent., xxxv, 188; Biologia, Dipt., ii, 453.—Tabasco, Mex.

trigonalis VAN DER WULP, Tijdschr. v. Ent., xxxv, 188; Biologia, Dipt., ii, 454.—Guerrero, Mex.

EVIBRISSA.

RONDANI, Dipt. Ital. Prod., iv, 74, 1861.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., iv, 143, 1889; vi, 155, 1893.

americana BIGOT, Annales, 1888, 256.—Wash.

TELOTHYRIA.

VAN DER WULP, Biologia, Dipt., ii, 167, 1890.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 377, 1891.

adscripta VAN DER WULP, Biologia, Dipt., ii, 170.—Vera Cruz, Mex.

argentifrons VAN DER WULP, Biologia, Dipt., ii, 183.—Guerrero, Mex.

assimulata VAN DER WULP, Biologia, Dipt., ii, 180.—Guerrero, Mex.

carinata VAN DER WULP, Biologia, Dipt., ii, 184.—Vera Cruz, Mex.

connexa VAN DER WULP, Biologia, Dipt., ii, 173.—Guerrero, Mex.

comata VAN DER WULP, Biologia, Dipt., ii, 177.—Guerrero, Mex.

costalis VAN DER WULP, Biologia, Dipt., ii, 178.—Guerrero and Vera Cruz, Mex.

cupreiventris VAN DER WULP, Biologia, Dipt., ii, 182, pl. iv, f. 14.—Vera Cruz and Tabasco, Mex.

curva VAN DER WULP, Biologia, Dipt., ii, 177.—Guerrero, Mex.

disgrega VAN DER WULP, Biologia, Dipt., ii, 171.—Guerrero, Mex.

dissepta VAN DER WULP, Biologia, Dipt., ii, 176.—Guerrero, Mex.

- fasciata* VAN DER WULP, *Biologia*, Dipt., II, 179.—Tabasco, Mex.
fimbricrura VAN DER WULP, *Biologia*, Dipt., II, 172.—Guerrero, Mex.
forticula VAN DER WULP, *Biologia*, Dipt., II, 174.—Guerrero, Mex.
hamata VAN DER WULP, *Biologia*, Dipt., II, 173.—Guerrero, Mex.
humeralis VAN DER WULP, *Biologia*, Dipt., II, 173.—Tabasco, Mex.
illucens VAN DER WULP, *Biologia*, Dipt., II, 183.—Tabasco, Mex.
lugens VAN DER WULP, *Biologia*, Dipt., II, 178.—Morelos and Vera Cruz, Mex.
murina VAN DER WULP, *Biologia*, Dipt., II, 180.—Guerrero, Mex.
nubecula VAN DER WULP, *Biologia*, Dipt., II, 170.—Tabasco, Mex.
occulta VAN DER WULP, *Biologia*, Dipt., II, 184.—Guerrero, Mex.
ochrifrons VAN DER WULP, *Biologia*, Dipt., II, 180.—Guerrero, Mex.
ovata VAN DER WULP, *Biologia*, Dipt., II, 182.—Guerrero, Mex.
pacata VAN DER WULP, *Biologia*, Dipt., II, 185.—Guerrero, Mex.
placida VAN DER WULP, *Biologia*, Dipt., II, 182.—Tabasco, Mex.
pollens VAN DER WULP, *Biologia*, Dipt., II, 174.—Guerrero, Mex.
rasilis VAN DER WULP, *Biologia*, Dipt., II, 175.—Guerrero, Mex.
rava VAN DER WULP, *Biologia*, Dipt., II, 178.—Guerrero, Mex.
recondita VAN DER WULP, *Biologia*, Dipt., II, 176.—Guerrero, Mex.
refuga VAN DER WULP, *Biologia*, Dipt., II, 185.—Guerrero, Mex.
relicta VAN DER WULP, *Biologia*, Dipt., II, 171.—Vera Cruz, Mex.
remota VAN DER WULP, *Biologia*, Dipt., II, 181.—Guerrero, Mex.
rufostriata VAN DER WULP, *Biologia*, Dipt., II, 172.—Vera Cruz and Tabasco, Mex.
striolata VAN DER WULP, *Biologia*, Dipt., II, 179.—Guerrero and Tabasco, Mex.
sublineata VAN DER WULP, *Biologia*, Dipt., II, 181.—Guerrero, Mex.
trifurca VAN DER WULP, *Biologia*, Dipt., II, 175.—Guerrero, Mex.
vaciva VAN DER WULP, *Biologia*, Dipt., II, 176.—Guerrero, Mex.
vicina VAN DER WULP, *Biologia*, Dipt., II, 184.—Guerrero and Tabasco, Mex.

CLINOASTER.

- VAN DER WULP, *Tijdschr. v. Ent.*, XXXV, 189, 1892; *Biologia*, Dipt., II, 457, 1903.
notabilis VAN DER WULP, *Tijdschr. v. Ent.*, XXXV, 189, 1892; *Biologia*, Dipt., II, 457, pl. XIII, f. 17.—Guerrero, Mex.

BESSERIA.

- DESVOIDY, *Myodaires*, 232, 1830.
 ZETTERSTEDT, *Dipt. Scand.*, III, 1223, 1844 (*Wahlbergia*).
 SCHINER, *Fauna Austr.*, I, 419, 1862.
 BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, IV, 143, 1889; VI, 154, 1893.
 ? *brevipennis* LOEW, *Cent.*, IV, 91 (*Wahlbergia*).—Nebraska.
 TOWNSEND, *Annals and Mag. Nat. Hist.*, XX, 288, says is not *Xanthomelana* nor *Wahlbergia*; from a figure of head of type.

HEMYDA.

- DESVOIDY, *Myodaires*, 226, 1830.
 BIGOT, *Bull. Soc. Ent. France*, 1884, p. LXX (*Ancylogaster*).
 GIGLIO-TOS, *Ditt. del Mess.*, III, 9, 1894, syn.
 BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, IV, 143, 1889; VI, 154, 1893.
 VAN DER WULP, *Biologia*, Dipt., II, 456, 1903 (*Ancylogaster*).

aurata DESVOIDY, Myodaires, 226.—Pa.

BIGOT, Bull. Soc. Ent. France, 1884, LXX (*Ancylogaster armatus*).—Mex.

ROEDER, Berl. Ent. Zeitsch., xxv, 212, oc. in Mo.

WILLISTON, Trans. Amer. Ent. Soc., xiii, 297 (*Hemysda* sp.).—Wash.

TOWNSEND, Trans. Amer. Ent. Soc., xxii, 68, notes.—Ill., Wash.

GIGLIO-TOS, Ditt. del Mess., iii, 9, note on syn. of *Ancyl. armatus*.

BRAUER, Sitzungsbericht k. Akad., cvii, 15, syn. of same, from type.

COQUILLETT, Revis. Tachin., 73.—N. Ill.

VAN DER WULP, Biologia, Dipt., ii, 456, pl. xiii, f. 16 (*Anc. armatus*).—

Orizaba, Mex.

N. J.—Smith Cat.; Idaho—J. M. A.

BESKIA.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., iv, 139, 1889; vi, 200, 1893.

TOWNSEND, Jour. N. Y. Ent. Soc., ii, 79, 1894 (*Ocypterosipha*).

VAN DER WULP, Biologia, Dipt., ii, 451, 1903.

ælops WALKER, List, iv, 796 (*Tachina*).—Ga.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., iv, 139, 170, f. 276 (*cornuta*).—Brazil.

TOWNSEND, Jour. N. Y. Ent. Soc., ii, 79 (*Ocypterosipha willistonii*).—San Domingo.

WILLISTON, Trans. Ent. Soc. Lond., 1896, 360, pl. xi, f. 97a (*cornuta*).—St. Vincent, W. I.

COQUILLETT, Revis. Tachin., 73.—Va., Ga., Texas.

VAN DER WULP, Biologia, Dipt., ii, 451, pl. xiii, f. 12 (*cornuta*).—Guerrero and Vera Cruz, Mex.

ISOGLOSSA.

COQUILLETT, Canad. Ent., xxvii, 125, 1895.

hastata COQUILLETT, Canad. Ent., xxvii, 126; Revis. Tachin., 73.—Los Angeles Co., Cal.

EPIGRYMYIA.

TOWNSEND, Trans. Amer. Ent. Soc., xviii, 375, 1891; loc. cit., 377 (*Drepanoglossa*); xix, 117, 1892 (*Siphoclytia*); loc. cit., 127 (*Siphophyto*); 128 (*Coronimyia*).

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., vi, 138, 1893, note.

COQUILLETT, Revis. Tachin., 74, 1897, notes and syn.

floridensis TOWNSEND, Trans. Amer. Ent. Soc., xix, 128 (*Siphophyto floridensis* and *neomexicana*).—Fla. and N. M.

COQUILLETT, Revis. Tachin., 75.—N. H., D. C., Va., S. Ill., West. S. D., Fla., N. M.; bred from *Plodia* sp. by T. D. A. Cockerell.

N. J.—Smith Cat.; Inverness, Fla.—Johnson.

geniculata TOWNSEND, Trans. Amer. Ent. Soc., xix, 129 (*Coronimyia*).—S. Ill. COQUILLETT, Revis. Tachin., 75.—Md.

illinoisensis ROBERTSON, Canad. Ent., xxxiii, 286.—Carlinville, Ill.

Probably a reddish var. of *polita*—J. M. A.

lucens TOWNSEND, Trans. Amer. Ent. Soc., xviii, 378 (*Drepanoglossa*).—Las Cruces, N. M.

COQUILLETT, Revis. Tachin., 74.—N. M.

occidentalis COQUILLETT, Canad. Ent., xxvii, 126 (*Drepanoglossa*); Revis. Tachin., 74.—S. Cal.

Beulah, N. M.—Skinner.

- opaca** COQUILLETT, Canad. Ent., XXVII, 128 (*Siphophyto*); Revis. Tachin., 74.—Cal.
- polita** TOWNSEND, Trans. Amer. Ent. Soc., XVIII, 376.—Dixie Landing, Va. COQUILLETT, Revis. Tachin., 74.—N. H., N. J., Va., Ga.
- robertsonii** TOWNSEND, Trans. Amer. Ent. Soc., XIX, 117 (*Siphoclytia*).—S. Fla. COQUILLETT, Revis. Tachin., 74.—Ga. Inverness, Fla.—Johnson.
- setigera** COQUILLETT, Canad. Ent., XXVII, 127 (*Siphophyto*); Revis. Tachin., 75.—S. Cal.

SIPHONA.

- MEIGEN, Illig. Mag., II, 281, 1803.
- LATREILLE, Gen. Crust. et Ins., IV, 339, 1809 (*Bucentes*).
- VAN DER WULP, Biologia, Dipt., II, 125, 1890; Tijdschr. v. Ent., XXXIX, 188, notes on dist.
- BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 149, 1893.
- COQUILLETT, Revis. Tachin., 75, notes, 1897.
- brevirostris** COQUILLETT, Revis. Tachin., 76.—Kirkwood, Mo.
- diluta** VAN DER WULP, Biologia, Dipt., II, 126.—Vera Cruz, Mex.
- futilis** VAN DER WULP, Biologia, Dipt., II, 125.—Mexico, several places.
- geniculata** DEGEER, Hist. Nat. Ins., VI, 20, 1776 (*Musca*).—Europe. FABRICIUS, Syst. Anth., 282, 1805 (*Stomoxys minuta*).
- LATREILLE, Gen. Crust. et Ins., IV, 339 (*Bucentes cinereus*).
- MEIGEN, Syst. Besch., IV, 154, 156, 157 (*geniculata, cinerea, nigrozittata* and *analis*).
- DESVOIDY, Myodaires, 92 (*persilla*); Annales Soc. Ent. France, 1850, 203, 205 (*tristis, fuscicornis* and *consimilis*).
- TOWNSEND, Trans. Amer. Ent. Soc., XVIII, 368 (*illinoisensis*).—Ill.
- COQUILLETT, Revis. Tachin., 75.—Toronto, Canada; N. H., Mass., D. C., N. C., N. Ill., Col., Wash. Fla.—Johnson; Beulah, N. M.—Skinner.
- plusiæ** COQUILLETT, Canad. Ent., XXVII, 125; Revis. Tachin., 76.—S. Cal.; bred from *Plusia californica* SPEYER.

GINGLYMYIA.

- TOWNSEND, Trans. Amer. Ent. Soc., XIX, 118, 1892.
- BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 198, 1893.
- acrirostris** TOWNSEND, Trans. Amer. Ent. Soc., XIX, 118.—Constantine, Mich.

HETEROPTERINA.

- MACQUART, Annales Soc. Ent. France, 1854, 426.
- SCHINER, Fauna Austr., I, 502.
- BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 113, 1889; V, 359, 1891; VI, 169, 1893.
- nasoni** COQUILLETT, Ent. News, VI, 207; Revis. Tachin., 76.—N. Ill.: Col., Cal.
- spinulosa** BIGOT, see *Paraplugia*.

PLAGIPROSPHERYSA.

- TOWNSEND, Trans. Amer. Ent. Soc., XIX, 113, 1892.
- BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 124, 197, 1893.
- WILLISTON, Trans. Ent. Soc. Lond., 1896, 355.
- COQUILLETT, Revis. Tachin., 77, 1897.

floridensis TOWNSEND, Trans. Amer. Ent. Soc., XIX, 114.—S. Fla.

Note.—I examined the types, and concluded that *valida* and *floridensis* are not, as Coquillett thought, the same species.

parvipalpis VAN DER WULP, Biologia, Dipt., II, 124 (*Prospheerysa*).—Guerrero, N. Sonora, and Presidio, Mex.

TOWNSEND, Trans. Amer. Ent. Soc., XIX, 113 and 114 (*valida*).—Las Cruces, N. M.

METAPLAGIA.

COQUILLET, Jour. N. Y. Ent. Soc., III, 102, 1895.

occidentalis COQUILLET, Jour. N. Y. Ent. Soc., III, 103; Revis. Tachin., 77.—S. Cal.

PARAPLAGIA.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 354, 1891.

COQUILLET, Revis. Tachin., 77, 1897, notes.

erucicola COQUILLET, Revis. Tachin., 78.—Mo.; bred from undet. larva on *Triosticum*.

spinulosa BIGOT, Annales, 1888, 362 (*Heteropterina*).—N. A.

COQUILLET, Ent. News, VI, 207, note; Jour. N. Y. Ent. Soc., III, 101 (*cinerea*); Revis. Tachin., 77.—D. C., N. Ill., Col.

TOWNSEND, Trans. Amer. Ent. Soc., XIX, 133, note on genus.

N. J.—Smith Cat.

CYRTOPHLEBA.

RONDANI, Dipt. Ital. Prod., I, 68, 1856.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 101, 1889; v, 354, 1891; VI, 147, 1893.

? *horrida* GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 158, 1893; Ditt. del Mess., III, 40, f. 11.—Mex.

COQUILLET, Revis. Tachin., 78, does not belong to this genus; hence the interrogation.

horrida COQUILLET, Jour. N. Y. Ent. Soc., III, 101; Revis. Tachin., 78.—Toronto, Canada; Mass., N. Y., N. Ill.

Montreal—Chagnon; N. J.—Smith Cat.

PLAGIA.

MEIGEN, Syst. Besch., VII, 201, 1838.

VAN DER WULP, Biologia, Dipt., II, 101, table of Mexican species, 1890.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 147, 1893.

americana VAN DER WULP, Biologia, Dipt., II, 102, pl. III, f. 19.—Mexico, several places.

GIGLIO-TOS, Ditt. del Mess., III, 41.—Mex.

TOWNSEND, Canad. Ent., XXIV, 67 (*aurifrons*).—Pa.

COQUILLET, Revis. Tachin., 78.—N. Ill., Mo., Cal.; Allende and Diaz, Mex.

N. J.—Smith Cat.

dicta GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 158, 1893; Ditt. del Mess., III, 42.—Mex.

incognita VAN DER WULP, Biologia, Dipt., II, 103.—Guerrero, Mex.

mexicana GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 158, 1893; Ditt. del Mess., III, 42, f. 13.—Mex.

rigidirostris VAN DER WULP, see *Siphoplusia*.

setifrons VAN DER WULP, Biologia, Dipt., II, 101.—Guerrero, Mex.

PLAGIOMIMA.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 384, 1891; vi, 138, 1893.

disparata BRAUER and BERGENSTAMM, loc. cit.—Mex.

SIPHOPLAGIA.

TOWNSEND, Trans. Amer. Ent. Soc., xviii, 349, 1891.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., vi, 140, 1893, note.

COQUILLET, Revis. Tachin., 78, 1897.

anomala TOWNSEND, Trans. Amer. Ent. Soc., xviii, 350.—Las Cruces, N. M.

Also oc. in Ill., Canad. Ent., xxiv, 67.

COQUILLET, Revis. Tachin., 78.—Los Angeles Co., Cal.

rigidirostris VAN DER WULP, Biologia, Dipt., ii, 102 (*Plagia*).—Guerrero, Mex. N. J.—Smith Cat.

GONIOCHÆTA.

TOWNSEND, Trans. Amer. Ent. Soc., xviii, 351, 1891.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., vi, 152, 1893.

plagioides TOWNSEND, Trans. Amer. Ent. Soc., xviii, 351.—Las Cruces, N. M.

PETEINA.

MEIGEN, Syst. Besch., vii, 214, 1838.

SCHINER, Fauna Austr., i, 439, 1862.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., iv, 138, 1889; v, 387, 1891; vi, 152, 1893.

stylata BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 387.—Greenland.

DISTICHONA.

VAN DER WULP, Biologia, Dipt., ii, 44, 1890.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 352, 1891 (*Pseudogermaria*).

TOWNSEND, Trans. Amer. Ent. Soc., xix, 114, 1892 (*Olenochata*).

COQUILLET, Revis. Tachin., 79, 1897, syn. and notes.

BRAUER, Sitzungsbericht k. Akad., cvii, 522, important notes.

georgiæ BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 352 (*Pseudogermaria*).—Ga.

COQUILLET, Revis. Tachin., 79.—Ga.

varia VAN DER WULP, Biologia, Dipt., ii, 44, pl. iii, f. 2; p. 480, note.—Mexico, several places.

TOWNSEND, Trans. Amer. Ent. Soc., xix, 115 (*Olenochata kansensis*).—Kans.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 339; vi, 120.

COQUILLET, Revis. Tachin., 79.—D. C., Ga., Miss., Tex., N. M.

BRAUER, Sitzungsbericht k. Akad., cvii, 522, note.—Ga.

N. J.—Smith Cat.

CHÆTOGLOSSA.

TOWNSEND, Trans. Amer. Ent. Soc., xix, 125, 1892.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., vi, 200, 1893.

COQUILLET, Revis. Tachin., 79, 1897.

picticornis TOWNSEND, Trans. Amer. Ent. Soc., xix, 126.—So. Fla.

COQUILLET, Revis. Tachin., 79.—S. Fla.

Inverness, Fla.—Johnson.

- violæ** TOWNSEND, Trans. Amer. Ent. Soc., XIX, 126 (*violæ* and *nigripalpis*).—
Both S. Fla. Inverness, Fla.—Johnson.
I confirmed the synonymy from the types.

PACHYOPHTHALMUS.

- BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 117, 1891; VI, 170, 195, 1893.
 TOWNSEND, Trans. Amer. Ent. Soc., XIX, 100, 1892 (*Sarcomacronychia*).
 COQUILLETT, Revis. Tachin., 79, notes, 1897.
floridensis TOWNSEND, Ent. News, III, 80; Trans. Amer. Ent. Soc., XIX, 101 (*Sarcomacronychia unica*); Canad. Ent., XXIV, 165 (*S. sarcophagoides*); Bull. Ohio Ex. Sta., Tech. ser., I, 3 (*S. trypoxylonis*).—So. Fla.; Las Cruces, N. M.; Las Cruces, N. M.; Ohio. The types of the last were reared by Webster from *Trypoxylon* sp.—or perhaps it was *Pelopæus* instead.
 COQUILLETT, Revis. Tachin., 80.—Ga., Fla., Tex., Col., Cal.
 N. J.—Smith Cat.; Fla.—Johnson; Moscow, Ida.—J. M. A. "Also a parasite of *Pelopæus cementarius*"—Smith Cat.
 Note.—I compared the types of all Townsend's species; they are the same, and *aurifrons* seemed scarcely different.
signatus MEIGEN, Syst. Besch., IV, 303 (*Tachina*).—Europe.
 SCHINER, Fauna Austr., I, 502 (*Macronychia*).
 TOWNSEND, Trans. Amer. Ent. Soc., XVIII, 354 (*aurifrons*).—Carlinville, Ill.
 COQUILLETT, Rev. Tachin., 79.—N. H., Mass., W. Va., N. C., Fla., Ida.; reared from *Pelopæus cementarius* and *Trypoxylon* sp. N. J.—Smith Cat.

SENOTAINIA.

- MACQUART, Dipt. Exot., Suppl., I, 167, 1846.
 BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., V, 360, 1891 (*Arctonopus*).
 COQUILLETT, Revis. Tachin., 80, 1897, pt. desc.
 Note.—*Miltogramma* MEIGEN, at least in the sense of Van der Wulp and Townsend, seems to belong here.
biseta THOMSON, Eugen. Resa, 524 (*Miltogramma*).—Panama.
erythrura VAN DER WULP, Biologia, Dipt., II, 89 (*Miltogramma*).—Presidio, Mex.
fasciata COQUILLETT, Revis. Tachin., 81.—Las Cruces, N. M.
nana VAN DER WULP, Tijdschr. v. Ent., XXXV, 195, 1888 (*Miltogramma*); Biologia, Dipt., II, 483 (id.).—Guerrero, Mex.
nana COQUILLETT, Revis. Tachin., 80, 1897.—Las Cruces, N. M.
rubriventris MACQUART, Dipt. Exot., Suppl., I, 167.—Texas.
 THOMSON, Eugen. Resa, 523 (*Miltogramma erythroccera*).—Cal.
 VAN DER WULP, Biologia, Dipt., II, 89 (*Miltogramma fulvicornis*).—Guerrero, Mex.
 TOWNSEND, Trans. Amer. Ent. Soc., XVIII, 355 (*M. flavicornis*); 357 (*M. similis*); Canad. Ent., XXIV, 68 (*M. kansensis*); Ent. News, III, 81 (*M. decisa*).—Carlinville, Ill.; Carlinville, Ill.; Kansas; So. Fla.
 COQUILLETT, Revis. Tachin., 80.—Toronto, Canada, to Fla.; Idaho to S. Cal.
 Note.—I confirmed the identity of Townsend's species with each other, from the types.

sarcophagina VAN DER WULP, *Biologia*, Dipt., II, 90 (*Miltogramma*).—Atoyac, Mex.

trilineata VAN DER WULP, *Biologia*, Dipt., II, 89 (*Miltogramma*).—Presidio, Mex.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, v, 361 (*Arrenopus americana*).—Ga.

TOWNSEND, *Trans. Amer. Ent. Soc.*, XVIII, 357 (*Miltogramma argenti-frons*); 358 (*M. cinerascens*).—Both Carlinville, Ill.

COQUILLETT, *Revis. Tachin.*, 81.—Toronto, Canada, to Ga., and west to Wash. and S. Cal.; reared from *Sphæcius speciosus* DRURY.

Note.—I confirmed the identity of Townsend's species, from the types.

PSEUDOTRACTOCERA.

TOWNSEND, *Trans. Amer. Ent. Soc.*, XIX, 107, 1892.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, VI, 196, 1893.

calosomæ COQUILLETT MS., see *Biomyia georgia*.

neomexicana TOWNSEND, *Trans. Amer. Ent. Soc.*, XIX, 108.—Las Cruces, N. M. COQUILLETT, *Revis. Tachin.*, 81.—Same locality.

BIOMYIA.

RONDANI, *Dipt. Ital. Prod.*, I, 72, 1856.

MEIGEN, *Syst. Besch.*, VII, 250 (*Fabricia*, preoc.), 1838.

RONDANI, *Dipt. Ital. Prod.*, IV, 53, 1861 (*Viviana*).

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, v, 313, 1891 (*Masi-phyia*).

COQUILLETT, *Revis. Tachin.*, 81, notes, 1897.

aurigera COQUILLETT, *Proc. Acad. Nat. Sci. Phil.*, 1895, 309 (*Masiphyia*); *Revis. Tachin.*, 82.—Fla.

brasiliانا BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, v, 313 (*Masi-phyia*).—Brazil.

TOWNSEND, *Trans. Amer. Ent. Soc.*, XIX, 97 (*Tachinomyia floridensis*).—Fla.

COQUILLETT, *Revis. Tachin.*, 82.—D. C., Md., Va., Ga., Fla., S. Cal. St. Augustine, Fla.—Johnson.

citrina BIGOT, *Annales*, 1888, 262 (*Viviana*).—Mex.

genalis COQUILLETT, *Revis. Tachin.*, 82.—Tifton, Ga.

georgiæ BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, v, 312 (*Viviana*).—Ga.

TOWNSEND, *Trans. Amer. Ent. Soc.*, XVIII, 359 (*Masicera sordicolor*).—Carlinville, Ill.

BURGESS, *Rept. Mass. State Board of Agric.*, 1897, 83 (*Pseudotractocera calosomæ* Coq. MS.).

COQUILLETT, *Revis. Tachin.*, 82.—Mass., S. Cal., Ga.; bred from *Calosoma calidum* FAER., and *C. peregrinator* GUÉR.

? rufopygata BIGOT, *Annales*, 1888, 262 (? *Viviana*).—Mex.

COMATACTA.

COQUILLETT, *Canad. Ent.*, XXXIV, 199, 1902.

pallidula VAN DER WULP, *Biologia*, Dipt., II, 95 (*Brachycoma*).—Yucatan.

COQUILLETT, *Canad. Ent.*, XXXIV, 200, type of this genus.—San Rafael, Vera Cruz, Mex.

ATACTA.

SCHINER, Novara, 328, 1868.

apicalis COQUILLETT, Revis. Tachin., 83.—Tifton, Ga.

brasiliensis SCHINER, Novara, 328.—Brazil.

VAN DER WULP, Biologia, Dipt., II, 92 (*Brachycoma laticeps*).—Guerrero and Tabasco, Mex.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 365, syn.; VI, 121.

nigripalpis VAN DER WULP, Biologia, Dipt., II, 98 (*Brachycoma*).—Guerrero and Tabasco, Mex.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 365, gen. ref.

SIPHOSTURMIA.

COQUILLETT, Revis. Tachin., 83, 1897.

rostrata COQUILLETT, Jour. N. Y. Ent. Soc., III, 106 (*Argyrophylax*); Revis. Tachin., 83.—Tifton, Ga.; Fla.

DECKE, Ent. News, XIII, 332. oc. in N. J.

BELVOSIA.

DESVOIDY, Myodaires, 103, 1830; loc. cit., 104 (*Latreillia*).

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 97, 1889 (*Willistonia*); VI, 204, 1893, history, etc., important.

VAN DER WULP, Biologia, Dipt., II, 29, 1890 (includes *Blepharipeza*).

WILLISTON, Insect Life, v, 238, 1893, with plate.

analis MACQUART, Dipt. Exot., Suppl., 1, 160, pl. XIV, f. 4.—Brazil?

GIGLIO-TOS, Ditt. del Mess., III, 29.—Tuxpango, Mex.

bella GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 158, 1893; Ditt. del Mess., III, 30, f. 6.—Mex.

bifasciata FABRICIUS, Syst. Ent., 777; Ent. Syst., IV, 325; Syst. Antl., 299 (all *Musca*).—West Indies.

LATREILLE, Dict. d'Hist. Nat., XXIV, 195 (*Ocyptera*).

WIEDEMANN, Auss. Zw., II, 305 (*Tachina*).—S. A.

DESVOIDY, Myodaires, 103 (*bicincta*); 104 (*Latreillia*).—Carolina and Antilles; Va.

MACQUART, Hist. Nat. Dipt., II, 104 (*Nemoræa*); 112 (*Scenometopia bicincta*); Dipt. Exot., II, 3, 57, pl. VI, f. 2.—Brazil and Philadelphia; bred from *Citheronia* (*Cerocampa* of MACQ.) *regalis* FABR.

WILLISTON, Trans. Amer. Ent. Soc., XIII, 302-3 (*bifasciata* and *bicincta*).—Wash. to San Domingo.

VAN DER WULP, Tijdschr. v. Ent., XXVI, 23; Biologia, Dipt., II, 30, pl. II, f. 8.—Guatemala.

RILEY, 5th Mo. Rept., 140, desc. and fig.; bred from *Anisota rubicunda*.—Mo.

RILEY, 4th Rept. U. S. Ent. Comm., App., 110, desc. of larva.

TOWNSEND, Trans. Amer. Ent. Soc., XIX, 89, pt. desc. (*bicincta*); Psyche, 1897, 128, oc. in N. M., etc.

COQUILLETT, Revis. Tachin., 84.—Mass. to S. Cal. and Mex.; bred from *Citheronia regalis* FABR., *Dryocampa rubicunda* FABR., and *Hemileuca* sp.

N. J.—Smith Cat.; bred from *Eacles imperialis*. Porto Rico—Roeder.

ferruginosa TOWNSEND, Trans. Amer. Ent. Soc., XXII, 71.—Jamaica.

leucophrys WIEDEMANN, see *Blepharipeza*.

leucopyga VAN DER WULP, Notes from the Leyden Mus., IV, 84; Tijdsch. v. Ent., XXVI, 27; Biologia, Dipt., II, 470, oc.—Brazil; Brazil; N. Yucatan.

luteola COQUILLETT, Proc. U. S. N. M., XXII, 253.—Vieques Id., near Porto Rico.
slossonæ COQUILLETT, Proc. Acad. Nat. Sci. Phil., 1895, 312; Revis. Tachin., 84.
 —Charlotte Harbor, Fla.

unifasciata DESVOIDY, Myodaires, 105 (*Latreillia*).

RILEY, 2d Mo. Rept., 51 (*Exorista flavicauda*); quoted in General Index to Mo. Repts., 88.—Mo.; bred from *Leucania unipuncta*.

COQUILLETT, Revis. Tachin., 84.—N. Y., Ill., Ga., Miss., Mo.; bred from same.

N. J.—Smith Cat.

vanderwulpi WILLISTON, Trans. Amer. Ent. Soc., XIII, 303.—San Domingo.

weyenberghiana VAN DER WULP, Tijdsch. v. Ent., XXVI, 26, pl. 1, f. 16; Biologia, Dipt., II, 470, oc.—Argentina, bred from *Saturnia argentina*; Mexico, several places, bred from *Automeris cecrops*.

MELANOPHRYS.

WILLISTON, Trans. Amer. Ent. Soc., XIII, 305, 1886.

TOWNSEND, Trans. Amer. Ent. Soc., XIX, 92, 1892 (*Atropharista*).

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 169, 1893.

COQUILLETT, Revis. Tachin., 85, 1897, notes.

insolita WALKER, Dipt. Saund., 277 (*Tachina*).—U. S.

TOWNSEND, Trans. Amer. Ent. Soc., XIX, 92 (*Atropharista jurinoides*).—Brookings, S. D.

WILLISTON, Kans. Univ. Quart., III, 172; Psyche, 1893, 409 and 492, notes.

TOWNSEND, Psyche, 1893, 461, notes.

COQUILLETT, Revis. Tachin., 85.—Grimsby, Canada; N. H., N. Ill., Col.

Axon, N. Y.—M. and H.

flavipennis WILLISTON, Trans. Amer. Ent. Soc., XIII, 306.—Wyo., Cal.

COQUILLETT, Revis. Tachin., 85.—S. Cal., Idaho.

APHRIA.

DESVOIDY, Myodaires, 89, 1830.

MEIGEN, Syst. Besch., VII, 266, 1838 (*Olivieria*).

MACQUART, Annales Soc. Ent. France, 1848, 87 (*Rhynchosia*, to replace *Olivieria*, preoc.).

SCHINER, Fauna Austr., I, 432, 1862.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 134, 1889; VI, 138 and 214, 1893.

COQUILLETT, Revis. Tachin., 85, 1897, notes.

ocypterata TOWNSEND, Trans. Amer. Ent. Soc., XVIII, 361.—Brookings, S. D., and Minn.

COQUILLETT, Revis. Tachin., 85.—Toronto, Can., to Ga.; Wash. to S. Cal.; bred from *Carnades messoria*.

MASISTYLUM.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 138, 1893.

macropogon BIGOT, Annales, 1888, 259 (*Brachycoma*).—Cal.

BRAUER, Sitzungsbericht d. K. Akad., CVI, 21, type redesc. and referred here.

OCYPTERA.

LATREILLE, Hist. Nat. Crust. et Ins., XIV, 378, 1804.

DESVOIDY, Myodaires, 231, 1830 (*Parthenia*).

SCHINER, Fauna Austr., I, 412, 1862.

BRAUER and BERGENSTAMM, ZwEIFL. d. Kaiserl. Mus., VI, 143, 1893.

COQUILLETT, Revis. Tachin., 86, 1897, notes.

VAN DER WULP, Biologia, Dipt., II, 449, 1903, table of species.

Note.—The synonymy of this genus is very uncertain, particularly as to *carolinæ* and *dosiades*. Townsend has dissented from Coquillett's conclusions, which are presented below. Brauer, Sitzungsbericht d. K. Akad., CVII, 1, confirms the generic position of Bigot's species, without expressing any opinion as to the synonymy.

arcuata SAY, see *Xanthomclana*.

argentea TOWNSEND, Proc. Ent. Soc. Wash., II, 144.—D. C. and Iowa.

COQUILLETT, Revis. Tachin., 86.—N. J., Pa., N. Va., Mo.

atra ROEDER, Stett. Ent. Zeit., 1885, 344.—Porto Rico. See *dosiades*.

VAN DER WULP, Biologia, Dipt., II, 450, oc.—N. Yucatan.

carolinæ DESVOIDY, Myodaires, 232 (*Parthenia*).—Carolina.

WALKER, List, IV, 694 (*dotades* and *cpytus*); 696 (*euchenor*).—Jamaica; Ga.; Mass. and Newfoundland.

BIGOT, Annales, 1878, 42-44 (*californica*, *fumipennis* and *binotata*).—Cal.; Cal.; Baltimore.

TOWNSEND, Psyche, 1893, 466; Jour. N. Y. Ent. Soc., v, 176; Psyche, 1897, 149; loc. cit., 1898, 212;—notes on syn. and oc.; bred by Forbes from an *Aceridiid* and ? *Leucania unipuncta* HAW.

Province of Quebec—Fyles.

dosiades WALKER, List, IV, 695.—Nova Scotia.

BIGOT, Annales, 1878, 46, 47 (*soror* and *simplex*).—Both Mexico.

GIGLIO-TOS, Ditt. del Mess., III, 3, includes *binotata*, *atra*, and ? *euchenor* as synonyms.—Orizaba, Mex.

COQUILLETT, Revis. Tachin., 86.—N. H. to Ga.; S. D. to Nev.

VAN DER WULP, Biologia, Dipt., II, 4 (*soror*) and 450, oc. in Mexico, many places.

Montreal—Chagnon.

liturata OLIVIER, see *Euantha*.

minor ROEDER, Stett. Ent. Zeit., 1885, 344.—Porto Rico.

Guerrero, Mex.—Van der Wulp.

signatipennis VAN DER WULP, Tijdschr. v. Ent., xxxv, 187; Biologia, Dipt., II, 450, pl. XIII, f. II.—Guerrero, Mex.

STEVENIA.

DESVOIDY, Myodaires, 221, 1830; Dipt. Env. Paris, II, 377, 1863.

RONDANI, Dipt. Ital. Prod., I, 80, 1856.

VAN DER WULP, Biologia, Dipt., II, 455, 1903, note.

Note.—Bigot's species probably do not belong to this genus.

flavocalyptrata BIGOT, Annales, 1888, 255.—Mex.

pallidiventris BIGOT, Annales, 1888, 254.—Mex.

pictipes BIGOT, see *Xanthomclana arcuata*.

LINNÆMYIA.

DESVOIDY, Myodaires, 52-57 (*Linnæmyia*, *Bonnettia*, *Bonnellia*, *Marshamia*), 1830.

MACQUART, Hist. Nat. Dipt., II, 80, 1835 (*Micropalpus*).

SCHINER, Fauna Austr., I, 427, 1862 (*Micropalpus*).

COQUILLETT, Revis. Tachin., 86, 1897, notes.

Note.—Several of the species described as *Micropalpus* will be found under *Epalpus*.

- angustifrons** VAN DER WULP, Tijdschr. v. Ent., xxxv, 193 (*Micropalpus*); Biologia, Dipt., II, 475 (id.).—Tabasco, Mex.
- comta** FALLÉN, Kongl. svenska Vetenskap. Akad. Handl., xxxi, 1810 (*Tachina*); Muscides, 24, 1820 (id.).—Europe.
- MEIGEN, Syst. Besch., IV, 259 (*Tachina fulgens*); VII, 217, refers to *Micropalpus*.
- DESVOIDY, Myodaires, 53-58 (*heraclei, analis, distincta, astivalis, borealis, Marshamia analis* and *nigripes*).—Europe, Philadelphia and Carolina.
- MACQUART, Hist. Nat. Dipt., II, 84 (*Micropalpus piccus*).—Carolina.
- ZETTERSTEDT, Dipt. Scand., III, 1094 (*Tachina*).
- RONDANI, Dipt. Ital. Prod., III, 70 (*Micropalpus*).
- SCHINER, Fauna Austr., I, 428 (*Mic. fulgens*; his *comtus*, p. 429, is a different species).
- GIGLIO-TOS, Ditt. del Mess., III, II, notes (*Mic. fulgens* and *comtus*).—Mexico, several places.
- VAN DER WULP, Biologia, Dipt., II, 474 (*M. fulgens*), oc.—Guerrero, Mex.
- COQUILLET, Revis. Tachin., 87, syn., etc.—London, Ont.; U. S. generally; bred from *Agrotis ypsilon* ROTT. and *Carnades messoria* HARR.
- nigrifrons** BIGOT, Annales, 1888, 263 (*Micropalpus*).—Mex.
- picta** MEIGEN, Syst. Besch., IV, 261 (*Tachina*); VII, 217, gen. ref.—Europe.
- SCHINER, Fauna Austr., I, 429.
- COQUILLET, Revis. Tachin., 87; Proc. Wash. Acad. Sci., II, 438, oc. in Alaska.—N. H.; Mass.
- Beulah, N. M.—Skimmer.

NEMORÆA.

- DESVOIDY, Myodaires, 71, 1830.
- SCHINER, Fauna Austr., I, 447, 1862.
- VAN DER WULP, Biologia, Dipt., II, 47, note, and table of Mexican species, 1890.
- BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 116, 1889; VI, 171, 183, 1893.
- BRAUER, Sitzungsbericht d. K. Akad., CVII, 5.
- clesides** WALKER, see *Phyto*.
- forreri** VAN DER WULP, Biologia, Dipt., II, 49, pl. II, f. 21.—Durango, Guerrero, Tepic and Vera Cruz, Mex.
- GIGLIO-TOS, Ditt. del Mess., III, 13 (*Microtrichomma*).—Guerrero, Mex., and Mexico City.
- Note*.—Giglio-Tos, in Boll. R. Univ. Torino, VIII, No. 158, 1, has proposed a new genus, *Microtrichomma*, for Van der Wulp's *Nemoræa intermedia, forreri*, and *smithi*; but Brauer and Bergenstamm, Zweifl. d. Kaiserl. Mus., VI, 183, mention these, with *obscurella*, as belonging to their genus *Arthrochata*. Not being able to clear up the situation, I content myself with calling attention to it.
- intermedia** VAN DER WULP, Biologia, Dipt., II, 50.—Guerrero and City of Mexico.
- GIGLIO-TOS, Ditt. del Mess., III, 13.
- intrita** WALKER, Trans. Ent. Soc., n. ser., v, 297.—Mex.
- labis** COQUILLET, Jour. N. Y. Ent. Soc., III, 104; Revis. Tachin., 87.—Wash.
- leucaniæ** KIRKPATRICK, see *Winthemia quadripustulata*.
- masuria** WALKER, see *Eutrixia*.
- minor** MACQUART, see *Panzeria radicum*.
- notata** BIGOT, Annales, 1888, 82 (*Echinomyia*).—Mex.
- BRAUER, Sitzungsbericht d. K. Akad., CVII, 5, refers to *Arthrochata*.

- obscura* VAN DER WULP, *Biologia*, Dipt., II, 48.—Guerrero, Mex.
pyste WALKER, see *Exorista*.
setigera COQUILLETT, *Proc. U. S. N. M.*, XXV, 111.—Medina, Ohio.
smithi VAN DER WULP, *Biologia*, Dipt., II, 50.—Atoyac, Mex.
trixoides WALKER, see *Microphthalma disjuncta*.
variegata VAN DER WULP, *Biologia*, Dipt., II, 48.—Guerrero, Mex.

PANZERIA.

- DESVOIDY, *Myodaires*, 62–68 (*Ernestia*, *Fausta*, *Erigone*, *Panzeria*), 1830.
 BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, VI, 145, 1893.
 COQUILLETT, *Revis. Tachin.*, 88, 1897, notes.
 BRAUER, *Sitzungsbericht d. K. Akad.*, CVII, 531, 1898.
flavicornis BRAUER, *Sitzungsbericht d. K. Akad.*, CVII, 532.—White Mts., N. H.
penitalis COQUILLETT, *Revis. Tachin.*, 89.—Va., Mo.; bred from *Pyrausta penitalis* GROTE.
radicum FABRICIUS, *Syst. Ent.*, 778; *Ent. Syst.*, IV, 326; *Syst. Antl.*, 300 (all *Musca*; the reference to Linnæus in the last is to a different species—ZTT.).—Europe.
 FALLÉN, *Muscides*, 26 (*Tachina lurida*). [Meig.]
 MEIGEN, *Syst. Besch.*, IV, 249 (*Tachina*); VII, 521, gen. ref.
 DESVOIDY, *Myodaires*, 66–68 (*Erigone anthophila*, *scutellaris*, *puparum*, *viridulans* and *dubia*).
 MACQUART, *Annales Soc. Ent. France*, 1848, 112 (*Nemoræa minor*).
 WALKER, *List*, IV, 732 (*Tachina ampelus*).—Nova Scotia.
 TOWNSEND, *Trans. Amer. Ent. Soc.*, XIX, 91 (*Hystricia aldrichi*).—Brookings, S. D.
 COQUILLETT, *Revis. Tachin.*, 88, syn., etc.—U. S. generally; British Col.; bred from *Hyphantria cunea* DRURY and *Hyphantria* sp.
 Hudsonian Zone, N. M.—Cockerell; Alaska—Coquillett; Beulah, N. M.—Skinner.
ruficauda BRAUER, *Sitzungsbericht d. K. Akad.*, CVII, 539 (*Erigone*).—N. A.; attributed to Riley, but it must have been a MS. name of his.

MACROMEIGENIA.

- BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, V, 311, 1891.
chrysoprocta WIEDEMANN, *Auss. Zw.*, II, 309 (*Tachina*).—No locality.
 WALKER, *Dipt. Saund.*, 295 (*Tachina interrupta*).—Ga.
 BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, V, 311.—S. C.
 COQUILLETT, *Revis. Tachin.*, 89.—Va., Ga. N. J.—Smith Cat.

BOLOMYIA.

- BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, V, 347, 1891.
rufata BIGOT, *Annales*, 1888, 257 (*Exorista*).—Mex.
 VAN DER WULP, *Biologia*, Dipt., II, 53 (*Mystacella violacea*).—Mexico, several places; Guatemala.
 BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, V, 347; VI, 122.—Mex., Brazil.
 BRAUER, *Sitzungsbericht d. K. Akad.*, CVI, 341, syn.

GYMNOCHÆTA.

- DESVOIDY, *Myodaires*, 371, 1830.
alcedo LOEW, *Cent.*, VIII, 61.—U. S.



- COQUILLETT, Revis. Tachin., 89 (inclusive of *ruficornis*).—N. J., Col., Kans.
- rheinwardtii** WIEDEMANN, Auss. Zw., II, 315 (*Tachina*).—Brazil.
- VAN DER WULP, Biologia, Dipt., II, 40.—Guatemala. Also p. 479, oc. in Mexico City and Guerrero.
- ruficornis** WILLISTON, Trans. Amer. Ent. Soc., XIII, 302.—Pa., Kans.
- COQUILLETT, Revis. Tachin., 89, as a synonym of *alcedo*, with which I disagree, after examining Williston's types and other material.
- subviridis** VAN DER WULP, Tijdschr. v. Ent., XXXV, 194; Biologia, Dipt., II, 480.—Mex.
- vivida** WILLISTON, Trans. Amer. Ent. Soc., XIII, 302.—Pa. Moscow, Ida.—J. M. A.

METAPHYTO.

- COQUILLETT, Revis. Tachin., 89, 1897.
- genalis** COQUILLETT, Revis. Tachin., 89.—Col.

EXORISTOIDES.

- COQUILLETT, Revis. Tachin., 90, 1897.
- harringtoni** COQUILLETT, Proc. U. S. N. M., XXV, 110.—Ottawa, Canada.
- johnsoni** COQUILLETT, Revis. Tachin., 91.—N. C., Nev.
- slossonæ** COQUILLETT, Revis. Tachin., 90.—Me., N. H., N. J.

HYPHANTROPHAGA.

- TOWNSEND, Psyche, 1892, 247.
- hyphantriæ** TOWNSEND, Psyche, 1891, 176 (*Meigenia*).—Las Cruces, N. M.; reared from *Hyphantria cunea* DRURY. Op. cit., 1892, 258, bred from *Eucaterpa variaria* GROTE.
- BAKER, Ent. News, VI, 174, reared from *Vanessa milberti* GODT. at Fort Collins, Col.
- COQUILLETT, Revis. Tachin., 91.—Las Cruces, N. M.

MYSTACELLA.

- VAN DER WULP, Biologia, Dipt., II, 51, 1890, def. and table of Mexican species.
- BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 233, 1893, refer to this as a mixture of genera.
- adjuncta** VAN DER WULP, Biologia, Dipt., II, 55.—Guerrero, Mex.
- flavifrons** VAN DER WULP, Biologia, Dipt., II, 57.—Tabasco, Mex.
- fuscicostalis** VAN DER WULP, Biologia, Dipt., II, 57, pl. III, f. 5.—Mex.; Costa Rica.
- BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., V, 341 and VI, 122, desc., and type of their genus *Paramsochata*.
- lineata** VAN DER WULP, Biologia, Dipt., II, 54.—Tabasco, Mex.
- lugubris** VAN DER WULP, Biologia, Dipt., II, 53.—Guerrero, Mex.
- postera** VAN DER WULP, Biologia, Dipt., II, 56.—Guerrero, Mex.
- rubriventris** VAN DER WULP, see *Mystacomia*.
- setulosa** VAN DER WULP, Biologia, Dipt., II, 58.—Guerrero, Mex.
- solita** VAN DER WULP, Biologia, Dipt., II, 55.—Guerrero, Mex.
- subcyanea** VAN DER WULP, Biologia, Dipt., II, 58.—Guerrero, Mex.
- tessellata** VAN DER WULP, Biologia, Dipt., II, 56.—Guerrero and Morelos, Mex.
- violacea** VAN DER WULP, see *Bolomyia rufata*.

MYSTACOMYIA.

GIGLIO-TOS, Boll. R. Univ. Torino, viii, No. 158, 1893; Ditt. del Mess., iii, 36, 1894.

rubriventris VAN DER WULP, Biologia, Dipt., ii, 52 (*Mystacella*).—Vera Cruz and Tuxpango, Mex.

GIGLIO-TOS, Ditt. del Mess., iii, 37.—Mexico City.

MEIGENIA.

DESVOIDY, Myodaires, 198, 1830.

RONDANI, Dipt. Ital. Prod., iii, iii, 1859.

VAN DER WULP, Biologia, Dipt., ii, 58, 1890, pt. desc., and table of Mexican species.

albidula VAN DER WULP, Biologia, Dipt., ii, 59, pl. iii, f. 6.—Tabasco, Mex.

albifacies VAN DER WULP, Tijdsch. v. Ent., xxxv, 194; Biologia, Dipt., ii, 481.—Guerrero, Mex.

flaviventris VAN DER WULP, Biologia, Dipt., ii, 59; p. 481, note.—Orizaba, Mex.: Guerrero.

gratiosa VAN DER WULP, Biologia, Dipt., ii, 60.—Guerrero, Mex.

hyphantriæ TOWNSEND, see *Hyphantrophaga*.

promiscua TOWNSEND, see *Frontina frenchii*.

websteri TOWNSEND, see *Frontina frenchii*.

EXORISTA.

MEIGEN, Illig. Mag., ii, 280, 1803; Syst. Besch., vii, 255, 1838.

DESVOIDY, Myodaires, 142, 143, 158, 176, 184 (*Lydella*, *Phryno*, *Phryx*, *Carcellia*, *Aplomya*), 1830; Annales Soc. Ent. France, 1847, 601 (*Hübneria*).

MACQUART, Hist. Nat. Dipt., ii, 115 (*Eurygaster*), 1835.

RONDANI, Dipt. Ital. Prod., i, 66 (*Nemorilla* and *Blepharidca*); iii, 90 (*Aporomyia*), 1856 and 1859.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., iv, 87, 1889 (*Parxorista*); 163 (*Sisyropa*); v, 331, 1891 (*Myrcxorista*); vi, 123, 1893 (*Masipoda*).

TOWNSEND, Psyche, 1896, 329, table of U. S. species.

COQUILLETT, Revis. Tachin., 91, syn. and notes, 1897.

ærata COQUILLETT, Revis. Tachin., 100.—N. Ill.

affinis FALLÉN, Kongl. Vetensk. Akad. Handl., xxxi (*Tachina*); Muscides, 28 (id.).—Europe.

MEIGEN, Syst. Besch., iv, 327 (*Tachina*); vii, 255, gen. ref.

ZETTERSTEDT, Dipt. Scand., iii, 1106 (*Tachina*).

MACQUART, Hist. Nat. Dipt., ii, 106 (*Scnomctopia*); Annales Soc. Ent. France, 1849, 380 (*polychata*).

WALKER, List, iv, 786 (*Tachina epicydes*).—Martin Falls, Canada.

SCHINER, Fauna Austr., i, 463 (*polychata*); 465 (*affinis*). See Coquillett, footnote.

COQUILLETT, Revis. Tachin., 94.—Toronto, Canada; Franconia, N. H.; Col.

amplexa COQUILLETT, Revis. Tachin., 98.—White Mts., N. H.; Frankford, Pa.

angustata VAN DER WULP, Biologia, Dipt., ii, 70.—Guerrero, Mex.

COQUILLETT, Revis. Tachin., 99.—Texas.

areos WALKER, see *Polidca*.

- blanda** OSTEN SACKEN, Canad. Ent., XIX, 162.—U. S. (no locality), bred by Riley from *Pyrameis cardui* LINN.
 WILLISTON, in Scudder's Butterflies of New England, p. 1918, quotes desc.; bred from *Nisoniades brizo* BD.-LEC.
 COQUILLETT, Revis. Tachin., 92.—N. H., Philadelphia, N. Ill., Kans., Col.; bred from *Eulca cippus* CRAM.
- blandita** COQUILLETT, Revis. Tachin., 96.—Franconia, N. H.
- boarmia** COQUILLETT, Revis. Tachin., 95.—Mass., D. C., Ark.; bred from *Boarmia pampinaria* GUEN. and *Loxostege similalis* GUEN.
 N. J.—Smith Cat.; infests *Cacacia fervidana*.
- brevis** VAN DER WULP, Biologia, Dipt., II, 64.—Guerrero, Mex.
- cæruleiventris** VAN DER WULP, Biologia, Dipt., II, 64.—Tabasco, Mex.
- cecropiæ** RILEY MS., see *Winthemia quadripustulata*.
- ceratomia** COQUILLETT, Revis. Tachin., 101.—Mo., Kans., Texas; bred from *Ceratomia undulosa* WALK., *Omphalocera cariosa* LED., *Pempelia* sp., and an undetermined Pyralid.
- ? **cessatrix** WALKER, Trans. Ent. Soc., n. ser., v, 305 (sep. 38) (*Lydella*).—Mex. Query by J. M. A.
- chelonix** RONDANI, Dipt. Ital. Prod., III, 120.—Europe.
 COQUILLETT, Revis. Tachin., 92.—N. H. to Cal.; bred from *Arachnis picta* PACK., and *Arctia docta* WLK.
- chrysophani** TOWNSEND, see *confinis*.
- ciliata** TOWNSEND, see *Winthemia quadripustulata*.
- commetans** WALKER, Trans. Ent. Soc., n. ser., v, 300 (*Eurigaster*).—Mex.
- confinis** FALLÉN, Muscides, 32 (*Tachina*).—Europe.
 MEIGEN, Syst. Besch., IV, 396 (*Tachina*); VII, 261, gen. ref.
 DESVOIDY, Myodaires, 159 (*Phyre zonata*, *seruillei*, and *sabulosa*).
 ZETTERSTEDT, Ins. Lapp., 644; Dipt. Scand., III, 1140 (*Tachina*).
 RONDANI, Dipt. Ital. Prod., III, 458.
 SCUDDER, Canad. Ent., XIX, 166 (*Tachina theclarum*).—Ontario? Bred by Wm. Saunders from *Thecla inornata* (*Thecla calanus* HUEB.).
 WILLISTON, in Scudder's Butterflies of New England, p. 1920, pl. LXXXIX, f. 17, 19 (*theclarum*); bred from *Lycæna pseudargiolus* BD.-LEC.
 TOWNSEND, Ent. News, II, 197 (*chrysophani*).—Iowa; bred from *Chrysophanus dione* (*C. xanthoides* BOISD.).
 COQUILLETT, Revis. Tachin., 97.—N. H., La., Ida., Cal., etc.; bred from *Dendrobius howardi* DYAR and *Lycæna exilis* BOISD.
- consobrina** VAN DER WULP, Biologia, Dipt., II, 68.—Tabasco, Mex.
- curriei** COQUILLETT, Revis. Tachin., 94.—University, N. D.
- datanæ** TOWNSEND, see *Winthemia quadripustulata*.
- desita** WALKER, Trans. Ent. Soc., n. ser., v, 299 (*Eurigaster*).—Mex.
- dorsalis** COQUILLETT, Canad. Ent., XXX, 236.—Pa., Ga.
- doryphoræ** RILEY, see *Phorocera*.
- dubia** FALLÉN, Kongl. svenska Vetensk. Akad. Handl., XXXI (*Tachina*); Muscides, 29 (id.).—Europe.
 MEIGEN, Syst. Besch., IV, 360 (*Tachina*); VII, 256, gen. ref.
 DESVOIDY, Myodaires, 141 (*Lypha*); 142 (*L. sylvatica*); 113 (*Lydella agrestis*, *nitida*, and *dubia*). [Schiner.]
 ZETTERSTEDT, Ins. Lapp., 643; Dipt. Scand., III, 1111 (both *Tachina*).
 RONDANI, Dipt. Ital. Prod., III, 90, footnote (*Aporomyia*, n. gen.).
 SCHINER, Fauna Austr., I, 460.
 COQUILLETT, Revis. Tachin., 95.—Colorado.
- elongata** VAN DER WULP, Biologia, Dipt., II, 65, pl. III, f. 8.—Costa Rica.

epicydes WALKER, see *affinis*.

eudryadis TOWNSEND, Trans. Amer. Ent. Soc., XIX, 287.—N. Y. (*eudryæ*); bred from *Eudryas* sp.

COQUILLETT, Revis. Tachin., 100.—Canada; N. H., Mass., N. J., D. C., Md., Va., Ohio, Mo.; bred from nine species of Lepidoptera.

Axton, N. Y.—M. and H.

exilis VAN DER WULP, Biologia, Dipt., II, 71.—Guerrero, Mex.

fertoria WALKER, Trans. Ent. Soc., n. ser., v, 300 (*Eurigaster*).—Mex.

flavicans VAN DER WULP, Biologia, Dipt., II, 74.—Orizaba, Mex.

flavicauda RILEY, see *Bekvosia unifasciata*.

flavirostris VAN DER WULP, Biologia, Dipt., II, 69, pl. III, f. 7.—Orizaba and Tabasco, Mex.

COQUILLETT, Revis. Tachin., 100.—D. C., Va., Fla., Miss.; bred from *Lagoa opercularis* S. and A., several times.

fronto COQUILLETT, Revis. Tachin., 96.—Mt. Washington, N. H.

futilis OSTEN SACKEN, Canad. Ent., XIX, 161.—No locality, presumably Mass.; bred by T. W. Harris and S. H. Scudder from *Iancsa atalanta*.

WILLISTON, in Scudder's Butterflies of New England, p. 1917, quotes desc.—Conn.

COQUILLETT, Revis. Tachin., 98.—Mass., N. Ill., Cal., Ore., Mich.; bred from *Clisiocampa thoracica* STRETCH and *Hadena apaniformis* GROTE.

glabricula VAN DER WULP, Biologia, Dipt., II, 73.—Guerrero, Mex.

griseomicans VAN DER WULP, Biologia, Dipt., II, 74.—Guerrero and Tabasco, Mex.; Costa Rica.

COQUILLETT, Revis. Tachin., 98.—D. C.; reared from *Orgyia leucostigma* SM. and ABBOTT. N. J.—Smith Cat.; White Mts., N. H.—Slosson.

habilis WALKER, Trans. Ent. Soc., n. ser., v, 301 (*Eurigaster*).—Mex.

helvina COQUILLETT, Revis. Tachin., 96.—White Mts., N. H.

N. J.—Smith Cat.

hirsuta OSTEN SACKEN, see *vulgaris*.

hispida VAN DER WULP, Biologia, Dipt., II, 65.—Orizaba and Guerrero, Mex.

humilis VAN DER WULP, Biologia, Dipt., II, 72.—Guerrero, Mex.

hybreas WALKER, see *Tachina*.

ignobilis VAN DER WULP, Biologia, Dipt., II, 71.—Guerrero, Mex.

? *indita* WALKER, Trans. Ent. Soc., n. ser., v, 306 (*Lydella*).—Mex.

infesta WILLISTON, see *Winthemia quadripustulata*.

intersticta VAN DER WULP, Biologia, Dipt., II, 69.—Guerrero, Mex.

irrequieta WALKER, see *Frontina*.

isæ COQUILLETT, Revis. Tachin., 96.—D. C.; bred from *Isa inornata* G. and R.

lagœ TOWNSEND, Ent. News, II, 159.—Guanajuato, Mex.; bred from *Lagoa opercularis*.

latevittata VAN DER WULP, Biologia, Dipt., II, 66.—Guerrero, Vera Cruz, Tabasco, and Orizaba, Mex.

latimanus VAN DER WULP, see *rufilatera*.

lepida DESVOIDY, Myodaires, 153 (*Zenillia*).—Cuba.

leucaniæ KIRKPATRICK, see *Winthemia quadripustulata*.

leuconota VAN DER WULP, Tijdschr. v. Ent., XXXV, 195; Biologia, Dipt., II, 482.—Guerrero, Mex.

lobeliæ COQUILLETT, Revis. Tachin., 97.—Md., D. C., W. Va.; bred from *Acronycta hamamelis* GUEN., *A. lobeliæ* GUEN., *A. sp.*, and *Orgyia leucostigma* S. and A.

maura VAN DER WULP, Biologia, Dipt., II, 72.—Guerrero, Mex.

mella WALKER, see *Tachina*.

modesta BIGOT, in Sagra's Cuba, 812 (*Eurigaster*).—Cuba.

- nigricauda** VAN DER WULP, *Biologia*, Dipt., II, 70.—Vera Cruz, Mex.
- ? **nigrifacies** BIGOT, *Annales*, 1888, 258 (*Chatolyga*).—Rocky Mts.
BRAUER, *Sitzungsbericht d. K. Akad.*, CVI, 22, refers to *Paraxorista*, with a doubt.
- nigripalpis** TOWNSEND, *Psyche*, 1896, 330.—Ill?
COQUILLET, *Revis. Tachin.*, 93.—Toronto, N. H., D. C., Ill., S. Cal.
- nigriventris** BIGOT, *Annales*, 1888, 257 (*Chatolyga*).—Mex.
BRAUER, *Sitzungsbericht d. K. Akad.*, CVI, 21, notes on type, refers to *Sisyropa*.
- nitidiventris** BIGOT, *Annales*, 1888, 258 (*Chatolyga*).—Mex.
BRAUER, *Sitzungsbericht d. K. Akad.*, CVI, 23, notes on type; refers to *Sisyropa*.
- nobilis** WILLISTON, *Trans. Ent. Soc. Lond.*, 1896, 354, pl. XI, f. 92.—St. Vincent, W. I.
- obscura** BIGOT, in Sagra's Cuba, 812 (*Eurigaster*).—Cuba. See also *tessellata*.
- obscurata** VAN DER WULP, *Biologia*, Dipt., II, 62.—Vera Cruz and Tabasco, Mex.
- occidentalis** BIGOT, *Annales*, 1888, 258 (*Chatolyga*).—Mex.
BRAUER, *Sitzungsbericht d. K. Akad.*, CVI, 23, notes on type; refers to *Paraxorista*.
- ochracea** VAN DER WULP, *Biologia*, Dipt., II, 63.—Mexico, several places; Costa Rica.
- ordinaria** VAN DER WULP, *Biologia*, Dipt., II, 64.—Guerrero and Tabasco, Mex.
COQUILLET, *Revis. Tachin.*, 94.—N. H., Mo., Ga., Texas.
- osten-sackenii** KIRKPATRICK, see *Winthemia quadripustulata*.
- panætius** WALKER, see *Tachina mella*.
- pansa** WALKER, see *Tachina mella*.
- parva** COQUILLET, *Revis. Tachin.*, 100.—Col.
- petiolata** COQUILLET, *Revis. Tachin.*, 98.—Va.; bred from *Lophyrus* sp.
- phycitæ** LEBARON, see *pyste*.
- platysamiæ** TOWNSEND, see *Winthemia quadripustulata*.
- polita** COQUILLET, *Revis. Tachin.*, 99.—Tifton, Ga.
- postica** WALKER, *Trans. Ent. Soc.*, n. ser., v, 301 (*Eurigaster*).—Mex.
- pyste** WALKER, *List*, IV, 754 (*Tachina*).—Nova Scotia.
LEBARON, 2d Ill. Report, 123 (*phycitæ*).—Ill.; bred from *Phycita nebule*.
RILEY, 4th Mo. Rept., 40 (*phycitæ*).
WILLISTON, Scudder's Butterflies of New England, III, 1921, pl. LXXXIX, f. 20 (*scudderi*).—Texas; bred by Belfrage from *Thecla autolyceus* EDW.
FORBES, Ill. Ent. Rept. for 1889-90, appendix, 22 (*phycitæ*).
COQUILLET, *Revis. Tachin.*, 93.—E. and S. States; Mo., Tex.; Allende, Mex.; bred from *Hyponomeuta multipunctella* CLEM., *Mincola indigineella* ZELL., a Pyralid, and a Tortricid.
- rubrella** DESVOIDY, *Myodaires*, 179 (*Carcelia*); *Dipt. Env. Paris*, I, 241 (id.).—San Domingo.
- rubricornis** VAN DER WULP, *Biologia*, Dipt., II, 66.—Vera Cruz and N. Yucatan, Mex.
- rufata** BIGOT, see *Bolomyia*.
- rufilatera** RONDANI, *Nuovi Ann. Sci. Nat. Bologna*, 1850, 9.—Venezuela.
? BIGOT, *Annales*, 1888, 257 (*Chatolyga erythropyga*).—Mex. [Brauer, *Sitzb.*, CVI, 20, with doubt.]
BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, IV, 162; V, 402, 430 (*Masipoda geminata*).—Orizaba, Mex.
VAN DER WULP, *Biologia*, Dipt., II, 67, pl. III, f. 10 (*latimana*); p. 482, notes.—Mexico, several places.

GIGLIO-TOS, Ditt. del Mess., III, 37, syn. and desc.—Mex.

? *rufipalpis* BIGOT, Annales, 1888, 256.—Mex.

BRAUER, Sitzungsbericht d. K. Akad., CVI, 13, desc.: thinks forms a new genus, hence the query.

saginata WALKER, Trans. Ent. Soc., n. ser., v, 298 (*Eurigaster*).—Mex.

sororcula VAN DER WULP, Biologia, Dipt., II, 68.—Morelos, Mex.

spinipennis COQUILLET, Revis. Tachin., 95.—Tifton, Ga.

tenuipalpis VAN DER WULP, Biologia, Dipt., II, 73.—Guerrero, Mex.

tessellata ROEDER, Stett. Ent. Zeit., 1885, 345.—Porto Rico.

Perhaps the same as *obscurus* BIGOT, from Cuba,—Roeder.

theclarum SCUDDER, see *confinis*.

tricolor VAN DER WULP, Biologia, Dipt., II, 67, pl. III, f. 9.—Mexico, several places; Costa Rica.

trisetosa COQUILLET, Proc. U. S. N. M., XXV, 110.—Moscow and Lewiston, Ida.

trivittata WIEDEMANN, Auss. Zw., II, 300 (*Tachina*).—St. Thomas, W. I.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 328 (*Nemorilla*).

trivittata VAN DER WULP, Biologia, Dipt., II, 70.—Orizaba, Vera Cruz and Tabasco, Mex.

GIGLIO-TOS, Ditt. del Mess., III, 38.—Orizaba.

unicolor VAN DER WULP, Biologia, Dipt., II, 63.—Morelos, Jalisco and Guerrero, Mex.

violenta WALKER, see *Frontina*.

vorax WIEDEMANN, Auss. Zw., II, 315 (*Tachina*).—Brazil.

BIGOT, Annales, 1888, 258 (*Chactolyga flavolimbata*).—Mex.

BRAUER, Sitzungsbericht d. K. Akad., CVI, 23, note on type. and syn.

vulgaris FALLÉN, Kongl. svenska Vetensk. Akad. Handl., XXXI: Muscides, 20 (both *Tachina*).—Europe.

MEIGEN, Syst. Besch., IV, 391 (*Tachina*); VII, 255, gen. ref.

DESVOIDY, Myodaires, 115 (*Lydella scutellaris*).

MACQUART, Hist. Nat. Dipt., II, 118 (*Eurigaster*): Annales Soc. Ent.

France, 1849, 387 (*distans*); 388 (*audax*); 409 (*florida*).

ZETTERSTEDT, Dipt. Scand., III, 1139.

RONDANI, Dipt. Ital. Prod., III, 140.

SCHINER, Fauna Austr., I, 458.

OSTEN SACKEN, Canad. Ent., XIX, 163 (*hirsuta*).—No locality; bred by Lintner from *Pieris rapæ*.

WILLISTON, in Scudder's Butterflies of New England, p. 1919, pl. LXXXIX, f. 13-15 (*hirsuta*).

COQUILLET, Revis. Tachin., 93.—White Mts. and Franconia, N. H.; Olympia, Wash.

TOWNSEND, Psyche, 1893, 467, bred by Forbes from *Pyrausta penitalis* GROTE.

Province of Quebec—Fyles.

EUPHOROCERA.

TOWNSEND, Trans. Amer. Ent. Soc., XIX, 112, 1892.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 197, 1893.

COQUILLET, Revis. Tachin., 101, 1897, notes.

cinerea VAN DER WULP, Biologia, Dipt., II, 81 (*Phorocera*).—Guerrero, Mex.

COQUILLET, Revis. Tachin., 102.—Franconia, N. H.

claripennis MACQUART, Dipt. Exot., Suppl. III, 209, pl. v, f. 8 (*Phorocera*).—N. A.

WALKER, in Lord's Naturalist in Vancouver Id., II, 339 (*Eurygaster septentrionalis*).—Vancouver Id.

WILLISTON, Scudder's Butterflies of New England, III, 1921, pl. LXXXIX, f. 52 (*Phorocera edwardsii*).—No locality; bred from butterflies by Dimmock and Riley.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 351 (*Podotachina vibrissata*).—New York.

TOWNSEND, Trans. Amer. Ent. Soc., XVIII, 366 (*Phorocera edwardsii*).—Fla. and Ill.

COQUILLETT, Revis. Tachin., 102; Proc. U. S. N. M., XXII, 253.—United States generally; reared from 26 hosts, mostly Lepidoptera, a few Coleoptera.

HOWARD, Bull. Div. Ent., v, Tech. ser., 43, note on habit.

MORGAN, Bull. 30, n. ser., Div. of Ent., 25, bred from *Melanoplus differentialis*.—Miss.

gelida COQUILLETT, Revis. Tachin., 101.—Pt. Barrows, Alaska.

tachinomoides TOWNSEND, Trans. Amer. Ent. Soc., XIX, 112.—Las Cruces, N. M.

Note.—Coquillett has placed this as a synonym of *claripennis* in his Revision; from the appearance of the type it seemed best to me to recognize it as a separate species.

PHOROCERA.

DESVOIDY, Myodaires, 1830, 131 (*Phorocera*); 122 (*Blondelia*); 123 (*Rhinomyia*); 154 (*Pales*).

VAN DER WULP, Biologia, Dipt., II, 75, desc. and table of Mexican spp.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 93, 1889; v, 333, 400, 1891; VI, 118, 1893.

ænea BIGOT, Annales, 1888, 259 (*Chatolyga*).—Mex.

? BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 209 (*Paradoria nigra*).—Venezuela.

BRAUER, Sitzungsbericht d. K. Akad., CVI, 22, type of Bigot redesc.; syn. with a query.

? *antennata* WALKER, Dipt. Saund., 298 (*Tachina*).—U. S.

COQUILLETT, Revis. Tachin., 105, not seen; gen. ref. with a doubt.

appendiculata VAN DER WULP, Biologia, Dipt., II, 85.—Guerrero, Mex.

atriceps VAN DER WULP, see *Metadoria barbata*.

barbata BIGOT, see *Metadoria*.

botyvora DESVOIDY, Myodaires, 138.—Cuba; bred from chrysalis of a *Botys*.

carbonaria VAN DER WULP, Biologia, Dipt., II, 78.—Guerrero, Mex.

cinerea VAN DER WULP, see *Euphorocera*.

claripennis MACQUART, see *Euphorocera*.

comstocki WILLISTON, in Scudder's Butterflies of New England, III, 1922.—No locality; reared by Riley from *Megathymus yucca*.

TOWNSEND, Psyche, 1893, 467, bred by Forbes from *Lophyrus* sp. and *Pyrausta penitalis* GROTE.

COQUILLETT, Revis. Tachin., 104.—D. C., S. C., Mo. N. J.—Smith Cat.

cylindrata VAN DER WULP, Biologia, Dipt., II, 82.—Guerrero, Mex.

demyllus WALKER, see *Admontia*.

doryphoræ RILEY, 1st Mo. Rept., 111 (*Lydcilla*).—Mo.; reared from *Doryphora decemlineata* SAY.

PETIT, Bull. 186, Mich. Expt. Sta., and Rept. Mich. Bd. of Agric. for 1901, 189, reared from same beetle in Northern Mich.; good fig.

COQUILLETT, Revis. Tachin., 104.—N. Ill., Mo., Col., N. M.; bred by Riley from *Faenessa antiopa* L.

edwardsii WILLISTON, see *Euphorocera claripennis*.

erecta COQUILLETT, Proc. U. S. N. M., xxv, 112; Revis. Tachin., 103 (*parva* BIGOT).—Ark., S. Cal.; bred from *Tortrix citrana* FERN.

facialis COQUILLETT, Revis. Tachin., 105.—San Diego, Texas.

flavicauda VAN DER WULP, Biologia. Dipt., II, 83.—Guerrero and Mexico City, Mex.

fulviceps VAN DER WULP, Biologia. Dipt., II, 80.—Guerrero and Orizaba, Mex.

immaculata VAN DER WULP, Biologia. Dipt., II, 82.—Guerrero, Mex.

leucaniæ COQUILLETT, Revis. Tachin., 104.—D. C., Ky., Tenn.; bred from *Leucania unipuncta* HAW. and *Loxostege similalis* GUEN.

linearis VAN DER WULP, Biologia. Dipt., II, 86.—Guerrero, Mex.

lophyri TOWNSEND, Trans. Amer. Ent. Soc., xix, 289.—Ottawa, Canada; reared from *Lophyrus abietis*.

Note.—Coquillett has made this a synonym of *Euphorocera claripennis*, but from an examination of the type I think it should stand.

macra VAN DER WULP, Biologia. Dipt., II, 84.—Tabasco, Mex.

COQUILLETT, Revis. Tachin., 103.—Utica, Miss.

melanoceph BIGOT, see *Metadoria barbata*.

? **melobosis** WALKER, List, iv, 743 (*Tachina*); Dipt. Saund., 290 (*T. addita*).—Fla.; U. S.

COQUILLETT, Revis. Tachin., 105, syn.; not seen, but perhaps a *Phorocera*.

muscaria VAN DER WULP, Biologia. Dipt., II, 83.—Tabasco, Mex.

nigrifrons VAN DER WULP, Biologia. Dipt., II, 81.—Guerrero, Mex.

nigrita VAN DER WULP, Biologia. Dipt., II, 77, pl. III, f. 11.—Costa Rica.

parva BIGOT, Annales, 1888, 260.—Rocky Mts.

BRÄUER, Sitzungsbericht d. K. Akad., cvi, 19, refers to *Paradoria*, from type.

Note.—For the *parva* of Coquillett's Revision, see *erecta*.

parvula VAN DER WULP, Biologia. Dipt., II, 78.—Orizaba, Mex.

GIGLIO-TOS, Ditt. del Mess., III, 41, notes.—Mex.

prisca WALKER, see *Cryptomeigenia theutis*.

promiscua TOWNSEND, see *Frontina frenchii*.

puer WILLISTON, Trans. Ent. Soc. Lond., 1896, 354, pl. XI, f. 91.—St. Vincent, W. I.

rufilabrum VAN DER WULP, Biologia. Dipt., II, 79.—Guerrero, Mex.

COQUILLETT, Revis. Tachin., 103.—Newark, N. J.

N. J.—Smith Cat.; Battle Creek, Mich.—J. M. A.

saundersii WILLISTON, in Scudder's Butterflies of New England, III, 1922.—No locality; bred by Riley from chrysalis of *Argynnis cybele*.

COQUILLETT, Revis. Tachin., 104.—Alameda Co., Cal.

scutellaris VAN DER WULP, Biologia. Dipt., II, 85.—Guerrero, Mex.

setigera VAN DER WULP, Biologia. Dipt., II, 84.—Vera Cruz and Tabasco, Mex.

sobrina VAN DER WULP, Biologia. Dipt., II, 84.—Tabasco, Mex.

sternalis COQUILLETT, Proc. U. S. N. M., xxv, 112.—N. H., Me., Idaho.

tenebricosa VAN DER WULP, Biologia. Dipt., II, 77.—Guerrero and Tuxpango, Mex.

tenuiseta MACQUART, Dipt. Exot., Suppl. 1, 166.—Cayenne, S. A.

VAN DER WULP, Biologia. Dipt., II, 483, notes and oc.—Guerrero, Mex.

theutis WALKER, see *Cryptomeigenia*.

torticis COQUILLETT, Revis. Tachin., 103.—Mich., Mo.; bred by Gillette from a Tortricid.

xanthura VAN DER WULP, Biologia. Dipt., II, 80 and 483.—Guerrero, Mex.

CHÆTOGENA.

RONDANI, Dipt. Ital. Prod., III, 175, 1859.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 94, 1889 (emended into *Setigena*); VI, 119, 1893 (*Setigena*).

carbonaria GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 158, 1893; Ditt. del Mess., III, 31, f. 19.—Orizaba, Mex.

cincta GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 158, 1893; Ditt. del Mess., III, 32.—Orizaba, Mex.

gracilis GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 158, 1893; Ditt. del Mess., III, 33, f. 7.—Mex.

MYIOPHARUS.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 161, 1889; V, 340, 1891.

metopia BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 161; V, 340; VI, 120.—Tacubaya and Merida, Mex.

VAN DER WULP, Biologia, Dipt., II, 158 (*Didyma mastia*).—Several places in Guerrero, Mex. [B. B.]

HYPERTROPHOCERA.

TOWNSEND, Trans. Amer. Ent. Soc., XVIII, 360, 1891.

parvipes TOWNSEND, Trans. Amer. Ent. Soc., XVIII, 360; Canad. Ent., XXIV, 166, oc. and note.—Las Cruces, N. M.

FRONTINA.

MEIGEN, Syst. Besch., VII, 247, 1838.

RONDANI, Dipt. Ital. Prod., IV, 36, 1861.

SCHINER, Fauna Austr., I, 496, 1862.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., V, 334, 1891 (*Acha-toncurea*); 340 (*Thysanomyia*); VI, 115, 1893 (*Parafrontina*).

COQUILLETT, Revis. Tachin., 105, 1897, notes and syn.

acroglossoides TOWNSEND, see *Chatogaedia analis*.

aletiæ RILEY, Canad. Ent., XI, 162 (*Tachina*). Bred from *Aletia argillacea* HUEB.

COMSTOCK, Rept. Commr. of Agric., 1879, 303 (*Tachina fraterna*).—Ala.; bred from *Aletia argillacea* HUEB.; the description is quoted by Riley, 4th Rept. U. S. Ent. Comm., Appendix, p. 109.

COQUILLETT, Revis. Tachin., 107.—Toronto, Canada; Mass. to Fla. and S. Cal.; reared from *Cerura* sp., *Dasylopha anguina* S. and A., *Halisidota maculata* HARR., *H. tessellata* S. and A., *Lagoa opercularis* S. and A., and *Orgyia leucostigma* S. and A.

americana BIGOT, Annales, 1888, 260 (*Prosopca*).—Mex.

VAN DER WULP, Biologia, Dipt., II, 120 (*Prospherysa contigua*); 210, syn.—Morelos, Mex.

ancilla WALKER, Dipt. Saund., 299 (*Tachina*).—U. S.

COQUILLETT, Revis. Tachin., 100.—Conn., Ga.

N. J.—Smith Cat.

apicalis BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 115 (*Parafrontina*).—N. A.

archippivora WILLISTON, in Scudder's Butterflies of New England, III, 1923, pl. LXXXIX, f. 18 (*Masicera*).—Greeley, Col.; bred from *Danaïs archippus*.

COQUILLETT, Revis. Tachin., 100.—Mich., Mo., Tex., Cal., Wash.; bred from *Agrotis ypsilon* ROTT., *Clisiocampa constricta* STRETCH, *C. pluvialis*

DYAR, *Danaïs archippus* FABR., *Laphygma flavimaculata* HARV., *Pyramcis cardui* L., and *P. carye* HUEB.

I reared this also from *Vanessa antiopa* at Moscow, Ida.—J. M. A. Beulah, N. M.—Skinner.

armigera COQUILLET, Insect Life, I, 332 (*Masicera*); Revis. Tachin., 106.—Los Angeles, Cal.; Allende, Mex. Bred from *Heliothis armiger* HUEB.

VAN DER WULP, Biologia, Dipt., II, 119 (*Prospherysa comosa*).—Teapa, Mex.

Ormond, Fla.—Johnson.

[**chrysopygata** BIGOT, Annales, 1888, 84.—Mex.

BRAUER, Sitzungsbericht d. K. Akad., CVI, 28, the types are a mixture of two species, of which the one corresponding to the description has no locality label.]

dubia WILLISTON, in Scudder's Butterflies of New England, III, 1924 (*Masicera*).—No locality; bred by Riley from *Vanessa antiopa* L.

TOWNSEND, Trans. Amer. Ent. Soc., XIX, 286 (*Masicera sphingivora*).—Morgantown, W. Va.; bred by Hopkins from a Sphingid larva.

COQUILLET, Revis. Tachin., 108, makes this a synonym of *violenta* WALKER, which seems to me uncommonly doubtful, so I do not follow it.—D. C.; bred from *Philampclus vitis* L.

? **dydas** WALKER, List, IV, 748 (*Tachina*).—Martin Falls, Canada.

COQUILLET, gen. ref. from Walker's desc., with a doubt.

✓ **frenchii** WILLISTON, in Scudder's Butterflies of New England, III, 1923, pl. LXXXIX, f. 23 (*Masicera*).—Moosehead L., Maine; bred from *Papilio glaucus*.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 334 (*Achatoncura hesperus*).—N. A.

TOWNSEND, Psyche, VI, 84 (*Phorocera promiscua*); Canad. Ent., XXIII, 206 (*Meigenia websteri*); Psyche, VI, 187 (*Masicera schizura*); Trans. Amer. Ent. Soc., XIX, 287 (*Masicera datanarum*).—Orono, Maine, from *Clisiocampa sylvatica*; Lafayette, Ind.; Manhattan, Kans., from *Schizura unicornis*; N. Y., Canada and Minn., bred from *Datana* sp. and *Attacus polyphemus*.

RILEY, 5th Mo. Rept., 139; 7th Rept., 178; 8th Rept., 179 (*Tachina anonyma*, without description).—Mo. and Kans.; bred from *Anisota rubicunda*, *Caloptenus spretus*, and *Megathymus yuccæ*.

RILEY, PACKARD, and THOMAS, 1st Rept. U. S. Ent. Comm., 319, parasitic on Rocky Mt. Locust (*Tachina anonyma*).

COQUILLET, Revis. Tachin., 107.—Canada; U. S. generally; list of *twenty-nine* hosts.

Note.—I examined types of *datanarum* and *schizura*; they seem to be the same.

fulvipalpis BIGOT, Annales, 1888, 263 (*Masicera*).—Rocky Mts.

BRAUER, Sitzungsbericht d. K. Akad., CVI, 12, gen. ref. from type.

insularis WIEDEMANN . . . (*Tachina*).

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 334.—St. Thomas, W. I.

Perhaps a manuscript name of Wiedemann's.

irrequieta WALKER, List, IV, 789 (*Tachina*).—Nova Scotia. See note to *rileyi*.

rileyi WILLISTON, in Scudder's Butterflies of New England, III, 1924, pl. LXXXIX, f. 22, 24 (*Masicera*).—No locality; bred by Riley from *Papilio cresphontes*.

- COQUILLETT**, Revis. Tachin., 108 (as *Tachina irrequieta* WALKER, which I do not consider recognizable).—Jacksonville, Fla.; bred from *Papilio thoas* L.
- rubentis** COQUILLETT, Proc. Acad. Nat. Sci. Phil., 1895, 310 (*Achatoneura*); Revis. Tachin., 106.—Tifton, Ga.; Jacksonville and L. Worth, Fla.
- rufifrons** ROEDER, Stett. Ent. Zeit., 1885, 346.—Porto Rico.
- rufostylata** BIGOT, see *Prosphecrusa*.
- setipes** COQUILLETT, Proc. U. S. N. M., xxv, 112.—Brookings, S. D.
- tenthredinidarum** TOWNSEND, Trans. Amer. Ent. Soc., xix, 285 (*Masicera*).—Ottawa, Can.; from sawfly.
- COQUILLETT, in the errata attached to the revised index to Revis. Tachin., p. 156, refers here. See *Masicera exilis*.
- violenta** WALKER, List, iv, 788 (*Tachina*).—Nova Scotia. See note to *dubia*.

STURMIA.

- DESVOIDY, Myodaires, 171, 1830.
- RONDANI, Dipt. Ital. Prod., i, 71, 1856 (*Blepharipa*).
- KOWARZ, Verh. Zool.-Bot. Ges., xxii, 460, 1873 (*Ctenocnemis*).
- BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., iv, 96, 1889 (*Blepharipa*); 163 (*Argyrophylax*).
- COQUILLETT, Revis. Tachin., 108, 1897, syn. and notes.
- albifrons** WALKER, Dipt. Saund., 283 (*Tachina*); 296 (*T. obconica*).—Both U. S. COQUILLETT, Revis. Tachin., 109.—Mass. to Fla. and S. Cal.; bred from *Ecpantheria scribonia* STOLL. and *Leucartia acraea* DRURY.
- albincisa** WIEDEMANN, Auss. Zweifl., ii, 334 (*Tachina*).—St. Thomas, W. I. BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., iv, 163; v, 343, pt. desc. and ref. to *Argyrophylax*.
- VAN DER WULP, Biologia, Dipt., ii, 485, pl. xiii, f. 19.—Guerrero, Mex.
- australis** COQUILLETT, Revis. Tachin., 110.—Jacksonville, Fla.
- austrina** COQUILLETT, Proc. U. S. N. M., xxv, 113.—Nassau, Bahamas.
- bakeri** COQUILLETT, Revis. Tachin., 112.—Col.
- discalis** COQUILLETT, Proc. U. S. N. M., xxv, 114.—Wis.
- distincta** WIEDEMANN, Auss. Zweifl., ii, 334 (*Tachina*).—W. I. TOWNSEND, Jour. Jamaica Inst., i, 70 (*Masicera protoparcis*).—Jamaica; bred from *Protoparce jamaicensis* BUTLER.
- COQUILLETT, Revis. Tachin., 111.—Va., Ga., Miss., Tex., Ill., Cal.; bred from *Protoparce celsus* and "a Sphingid."
- dubia** BIGOT, Annales, 1888, 257 (*Chatolyga*).—Mex.
- BRAUER, Sitzungsbericht d. K. Akad., cvi, 21, pt. desc. of type; ref. to *Argyrophylax*, but related to *Atacta*.
- fraudulenta** VAN DER WULP, Biologia, Dipt., ii, 110 (*Masicera*).—Guerrero and Vera Cruz, Mex.
- COQUILLETT, Revis. Tachin., 112.—Mass., Ill., Fla.
- harrisinae** COQUILLETT, Revis. Tachin., 110.—U. S.; bred from *Harrisina americana*.
- inquinata** VAN DER WULP, Biologia, Dipt., ii, 107 (*Masicera*).—Morelos, Mex. COQUILLETT, Revis. Tachin., 111.—D. C., Ill., Mo., Ga., Miss., La., Col.; bred from eight lepidopterous hosts.
- N. J.—Smith Cat.; from *Eacles imperialis*.
- limata** COQUILLETT, Proc. U. S. N. M., xxv, 113.—Opelousas, La.; Ohio.
- mexicana** GIGLIO-TOS, Boll. R. Univ. Torino, viii, No. 158, 1893; Ditt. del Mess., iii, 33, f. 18 (*Blepharipoda*).—Tehuacan, Mex.

nigrita TOWNSEND, Trans. Amer. Ent. Soc., XVIII, 358 (*Masicera*).—Carlinville, Ill.

COQUILLETT, Revis. Tachin., 111.—Col. Idaho—J. M. A.

occidentalis COQUILLETT, Revis. Tachin., 110.—Seattle, Wash. Idaho—J. M. A.

phyciodis COQUILLETT, Revis. Tachin., 109.—Cape Cod, Mass., and Piney Point, Md.; bred from *Phyciodes* sp.

pilatei COQUILLETT, Revis. Tachin., 111.—Tifton, Ga.

rostrata COQUILLETT, see *Siphosturmia*.

schizuræ COQUILLETT, Revis. Tachin., 112.—Pullman, Wash.; bred by Piper from *Schizura ipomææ* DOUBLEDAY.

sternalis COQUILLETT, Revis. Tachin., 108.—Mo.

strigata VAN DER WULP, Biologia, Dipt., II, 105 (*Masicera*).—Guerrero, Morelos, Vera Cruz and Tabasco, Mex.

GIGLIO-TOS, Ditt. del Mess., III, 45 (id.), oc. in Mex.

COQUILLETT, Revis. Tachin., 110.—Jacksonville, Fla.

MASICERA.

MACQUART, Hist. Nat. Dipt., II, 118, 1835.

MEIGEN, Syst. Besch., VII, 178, 1838.

RONDANI, Dipt. Ital. Prod., I, 71 (*Ceromasia*), 1856.

SCHINER, Fauna Austr., I, 481, 1862.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 87, 1889 (*Dexodes* and *Hemimasicera*).

VAN DER WULP, Biologia, Dipt., II, 103, def. and table of Mexican species, 1890.

COQUILLETT, Revis. Tachin., 113, 1897, notes.

abbreviata BIGOT, see *Hypostena*.

abdominalis VAN DER WULP, Biologia, Dipt., II, 106.—Yucatan, Mex.

archippivora WILLISTON, see *Frontina*.

armigera COQUILLETT, see *Frontina*.

aurifrons COQUILLETT, Revis. Tachin., 114.—White Mts., N. H.

bilineata VAN DER WULP, Biologia, Dipt., II, 112.—Yucatan, Mex.

GIGLIO-TOS, Ditt. del Mess., III, 43, notes.—Mex.

bistrigata VAN DER WULP, Biologia, Dipt., II, 109.—Tabasco, Mex.

calcarata VAN DER WULP, Biologia, Dipt., II, 114.—Cuernavaca, Mex.

castanifrons BIGOT, see *Prospheysa*.

celer COQUILLETT, Revis. Tachin., 114, footnote.—N. J., Va., La.

chætoneura COQUILLETT, Revis. Tachin., 115.—White Mts., N. H.

? **chrysocephala** BIGOT, Annales, 1888, 261 (*Ceromasia*).—Mex.

BRAUER, Sitzungsbericht d. K. Akad., CVI, 15, redesc. type; it will form a new genus.

cubæcola JENNICKE, Neue Exot. Dipt., 74, pl. II, f. 6 (*Tachina*).—Cuba.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 209, refer to *Hemimasicera*.

BRAUER, Sitzungsbericht d. K. Akad., CVI, 14, same ref., from type.

? **cubensis** MACQUART, Dipt. Exot., Suppl. III, 46, pl. V, f. 5.—Cuba.

BIGOT, in Sagra's Cuba, 813. I should think the generic reference doubtful.

curta VAN DER WULP, Biologia, Dipt., II, 112.—Tabasco, Mex.

datanarum TOWNSEND, see *Frontina frenchii*.

dejecta VAN DER WULP, Biologia, Dipt., II, 113.—Guerrero, Mex.

disputans WALKER, Trans. Ent. Soc., II, ser., V, 303.—Mex. Unrecognizable—Wulp.

dubia WILLISTON, see *Frontina*.

eucerata BIGOT, see *Leskia*.

eufitchiæ TOWNSEND, Trans. Amer. Ent. Soc., XIX, 286.—Fort Collins, Col.; bred by Gillette from *Eufitchia ribearia*.

BAKER, Ent. News, VI, 174, a common parasite of *Thamnonoma flavicaria* and *T. quadrilincaria* at Fort Collins, Col.

COQUILLETT, Revis. Tachin., 115.—Grimsby, Canada; N. H., Md., D. C., Ill., Cal.

N. J.—Smith Cat.; bred from *Hyphantria cunea*.

exilis COQUILLETT, Revis. Tachin., 114 (*tenthredinidarum* TOWNSEND); revised index to same, 156.—Mass. and Col.

expurgata WALKER, Trans. Ent. Soc., n. ser., v, 304.—Mex. Unrecognizable—Wulp.

festinans MEIGEN, Syst. Besch., IV, 382 and 384 (*Tachina rutila* and *festinans*).—Europe.

MACQUART, Annales Soc. Ent. France, 1850, 460 (*florum*).

SCHNER, Fauna Austr., I, 484 (*rutila* Mg.).

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 330.

COQUILLETT, Revis. Tachin., 114.—N. H.

flavescens VAN DER WULP, Biologia, Dipt., II, 112.—Cuernavaca, Mex.

flavifacies BIGOT, Annales, 1888, 263.—Mex.

BRAUER, Sitzungsbericht d. K. Akad., CVI, 12, notes on generic position.

fraudulenta VAN DER WULP, see *Sturmia*.

frenchii WILLISTON, see *Frontina*.

fulvipalpis BIGOT, see *Frontina*.

gentica WALKER, Trans. Ent. Soc., n. ser., v, 302.—Mex. Unrecognizable—Wulp.

glaucia GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 158, 1893; Ditt. del Mess., III, 46.—Mex.

impedita VAN DER WULP, Biologia, Dipt., II, 107.—Cuernavaca, Mex.

inquinata VAN DER WULP, see *Sturmia*.

luctuosa VAN DER WULP, Biologia, Dipt., II, 105.—Guerrero, Vera Cruz and Tabasco, Mex. White Mts., N. H.—Slosson.

myoidæa DESVOIDY, Myodaires, 114 (*Lydella*); Dipt. Env. Paris, I, 856 (id.).—Europe.

MACQUART, Annales Soc. Ent. France, 1850, 468 (*Masicera*).

COQUILLETT, Revis. Tachin., 114.—Canada, Mass., Ill.; bred from *Arzama obliquata* G. and R. and *Hydracia nitela* GUEN.

necopina WALKER, Trans. Ent. Soc., n. ser., v, 303.—Mex. Unrecognizable—Wulp.

nigrita TOWNSEND, see *Sturmia*.

normula VAN DER WULP, Biologia, Dipt., II, 109.—Guerrero, Vera Cruz and Orizaba.

pauciseta COQUILLETT, Revis. Tachin., 113.—Ga., S. Cal.

picta VAN DER WULP, Biologia, Dipt., II, 108, pl. III, f. 13.—Mexico, several places.

pictigaster BIGOT, see *Hypostena*.

piliseta VAN DER WULP, Biologia, Dipt., II, 110.—Yucatan, Mex.

polita COQUILLETT, Proc. U. S. N. M., XXV, 114.—White Mts., N. H., 8,000 ft.

protoparcis TOWNSEND, see *Sturmia distincta*.

pulverea COQUILLETT, Revis. Tachin., 114.—Tifton, Ga., and Fla.

pumila VAN DER WULP, Biologia, Dipt., II, 108.—Guerrero, Mex.

quadrivittata BIGOT, see *Hypostena*.

- rileyi* WILLISTON, see *Frontina*.
schizuræ TOWNSEND, see *Frontina frenchii*.
sesquiple GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 158, 1893; Ditt. del Mess., III, 43.—Mex.
sodalis VAN DER WULP, Biologia, Dipt., II, 106.—Guerrero and Tabasco, Mex. Ormond, Fla.—Johnson.
sordicolor TOWNSEND, see *Biomysia georgia*.
sordida VAN DER WULP, Biologia, Dipt., II, 113.—Guerrero, Vera Cruz and Tabasco, Mex.
sphingivora TOWNSEND, see *Frontina dubia*.
spinipes BIGOT, see *Hypostena*.
strigata VAN DER WULP, see *Sturmia*.
subpilosa VAN DER WULP, Biologia, Dipt., II, 110.—Vera Cruz, Mex.
tantilla VAN DER WULP, Biologia, Dipt., II, 106.—Tabasco, Mex.
tenthredinidarum TOWNSEND, see *Frontina*.
trichoneura VAN DER WULP, Biologia, Dipt., II, 111.—Guerrero, Mex.
usta GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 158, 1893; Ditt. del Mess., III, 44.—Mex.
vittata WALKER, Dipt. Saund., 301 (not p. 273) (*Tachina*).—S. A. GIGLIO-TOS, Ditt. del Mess., III, 45.—Mex.
zonata BIGOT, see *Chatona*.

ACEMYIA.

- DESVOIDY, Myodaires, 202, 1830.
 MACQUART, Annales Soc. Ent. France, 1855, 24 (*Agculocera*).
 BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 128, 1889; VI, 160, 1893.
 COQUILLETT, Revision Tachin., 116, 1897, notes.
dentata COQUILLETT, Proc. Acad. Nat. Sci. Phil., 1895, 311.—Georgetown, Fla., Mobile, Ala.; Los Angeles Co., Cal. Also Revis. Tachin., 116.—Mass., Conn., Ga., Fla., Ala., Miss., Mo., Cal.; bred from *Chortophaga viridifasciata* DEG.
 MORGAN, Bull. 30, n. ser., Div. of Ent., 25, reared from *Melanoplus differentialis*.—Miss.
tibialis COQUILLETT, Revis. Tachin., 116.—Santa Cruz Mts., Cal.

MYOTHYRIA.

- VAN DER WULP, Biologia, Dipt., II, 208, 1890, def. and table of Mexican species.
 BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., V, 358, 1891; VI, 160, 1893.
degeerioides VAN DER WULP, Biologia, Dipt., II, 209.—Vera Cruz, Mex.
majorina VAN DER WULP, Biologia, Dipt., II, 209, pl. IV, f. 19.—Guerrero and Tabasco, Mex.
 BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., V, 358, note.
trichosoma VAN DER WULP, Biologia, Dipt., II, 208.—Vera Cruz, Mex.
 GIGLIO-TOS, Ditt. del Mess., III, 54, note.
vanderwulpi TOWNSEND, see *Hypostena*.

PSEUDOCHEÆTA.

- COQUILLETT, Proc. Acad. Nat. Sci. Phil., 1895, 309; Revis. Tachin., 116, 1897, notes.
argentifrons COQUILLETT, Proc. Acad. Nat. Sci. Phil., 1895, 310; Revis. Tachin., 116.—Charlotte Harbor, Fla., and Los Angeles, Cal.; Ill., Ga.; bred from a Bombycid. N. J.—Smith Cat.

pyralidis COQUILLETT, Revis. Tachin., 117.—D. C.; bred from a Pyralid larva on oak.

PROSPHERYSA.

VAN DER WULP, *Biologia*, Dipt., II, 116, 1890, def. and table of Mexican species.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, v, 374, 1891; VI, 336, 1893, call this a "Mischgattung."

æmulans VAN DER WULP, *Biologia*, Dipt., II, 117, pl. III, f. 14.—Vera Cruz and Tabasco, Mex.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, v, 374; VI, 128, would make this the type of the new genus *Dexiophana*.

GIGLIO-TOS, *Ditt. del Mess.*, III, 51, note.—Mex.

COQUILLETT, Revis. Tachin., 117.—Anglesea, N. J.

albifacies VAN DER WULP, *Biologia*, Dipt., II, 121.—Jalisco, Mex.

apicalis VAN DER WULP, *Biologia*, Dipt., II, 122.—Guerrero, Mex.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, v, 334 and 401, would refer this to *Achatoncura*.

balteata VAN DER WULP, *Biologia*, Dipt., II, 124.—Guerrero, Mex.

? *castanifrons* BIGOT, *Annales*, 1888, 261 (*Ceromasia*).—Mex.

BRAUER, *Sitzungsbericht d. K. Akad.*, CVI, 14, notes on type; perhaps a new genus.

comosa VAN DER WULP, see *Frontina armigera*.

contigua VAN DER WULP, see *Frontina americana*.

crebra VAN DER WULP, see *Chatogadia*.

ingloria VAN DER WULP, *Biologia*, Dipt., II, 119.—Guerrero, Mex.

macilenta VAN DER WULP, *Biologia*, Dipt., II, 122.—Orizaba, Mex.

minuta VAN DER WULP, *Biologia*, Dipt., II, 123, pl. III, f. 16.—Cuernavaca, Mex.

ochricauda VAN DER WULP, *Biologia*, Dipt., II, 118.—Guerrero, Mex.

parvipalpis VAN DER WULP, see *Plagiprospherysa*.

plagioides VAN DER WULP, *Biologia*, Dipt., II, 125.—Guerrero and Morelos, Mex.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, v, 401, refer this to *Prosopodes*.

rectinervis VAN DER WULP, *Biologia*, Dipt., II, 123.—Guerrero, Mex.

rufifrons VAN DER WULP, see *Chatogadia*.

rufostylata BIGOT, *Bull. Soc. Ent. France*, 1887, cxli; *Annales*, 1888, 83 (*Frontina*).—Mex.

BRAUER, *Sitzungsbericht d. K. Akad.*, CVI, 27, notes on type and gen. ref.

serotina VAN DER WULP, *Biologia*, Dipt., II, 124.—Mexico City.

similis WILLISTON, see *Tachina robusta*.

trifasciata VAN DER WULP, *Biologia*, Dipt., II, 118.—Guerrero, Mex.

vilis VAN DER WULP, see *Chatogadia*.

VANDERWULPIA.

TOWNSEND, *Trans. Amer. Ent. Soc.*, XVIII, 381, 1891.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, VI, 128, 1893.

COQUILLETT, Revis. Tachin., 117, 1897, notes.

atrophopodoides TOWNSEND, *Trans. Amer. Ent. Soc.*, XVIII, 381.—Las Cruces, N. M.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, VI, 128, brief desc.

COQUILLETT, Revis. Tachin., 117.—Las Cruces, N. M.

sequens TOWNSEND, *Canad. Ent.*, XXIV, 172.—Las Cruces, N. M.

COQUILLETT, Revis. Tachin., 117.—Texas.

WULPIA.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., vi, 128, 1892.
aperta BRAUER and BERGENSTAMM, loc. cit. and p. 188.—Orizaba, Mex.

EUTHERA.

LOEW, Cent., vii, 85, 1866.
 BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., iv, 140, 1889; vi, 152, 1893.
bicolor COQUILLETT, Proc. U. S. N. M., xxv, 114.—Texas.
tentatrix LOEW, Cent., vii, 85.—N. Y.
 COQUILLETT, Revis. Tachin., 120.—Pottstown, Pa., and Tifton, Ga.

HOUGHIA.

COQUILLETT, Revis. Tachin., 118, 1897.
setipennis COQUILLETT, Revis. Tachin., 118.—Tifton, Ga.

TRICHOLYGA.

RONDANI, Dipt. Ital. Prod., iii, 184, 1859.
 BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., iv, 98, 1889, emended;
 vi, 124, 1893.
caloptera BIGOT, see *Macquartia*.
fulvidapex BIGOT, see *Winthemia*.
gracilens GIGLIO-TOS, Boll. R. Univ. Torino, viii, No. 158, 1893; Ditt. del Mess.,
 iii, 39, f. 16.—Mex.
insita GIGLIO-TOS, Boll. R. Univ. Torino, viii, No. 158, 1893; Ditt. del Mess.,
 iii, 39.—Mex.

TACHINA.

MEIGEN, Illig. Mag., ii, 280, 1803; Syst. Besch., iv, 234, 1824; restricted
 in vii, 174, 189, 1838.
 FALLÉN, Muscides, 2, 1820.
 MACQUART, Hist. Nat. Dipt., ii, 139, 1835.
 RONDANI, Prod. Dipt. Ital., iii, 193, 1859.
 SCHINER, Fauna Austr., i, 472, 1862.
 BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., iv, 98, 1889 (*Eutachina*
 and *Chatotachina*); vi, 145, 1893.
 TOWNSEND, Trans. Amer. Ent. Soc., xix, 96, 1892 (*Tachinomyia*).
 COQUILLETT, Revis. Tachin., 118, 1897.
addita WALKER, see ? *Phorocera melobosis*.
albifrons WALKER, see *Sturmia*.
albincisa WIEDEMANN, see *Sturmia*.
aletiæ RILEY, see *Frontina*.
ampelus WALKER, see *Panzeria radicum*.
ancilla WALKER, see *Frontina*.
anonyma RILEY, see *Frontina frenchii*.
antennata WALKER, see *Phorocera*.
armata WIEDEMANN, see *Dcjeania*.
atra WALKER, see *Archytas aterrima*.
 ? **breviventris** WIEDEMANN, AUSS. Zw., ii, 297.—Brazil.
 WALKER, List, iv, 712, oc. in Jamaica.
 Walker's identification is very doubtful, hence the query.
clisiocampæ TOWNSEND, see *mella*.
convecta WALKER, see *Schizotachina*.

corythus WALKER, see *Xanthomelana arcuata*.

crudelis WIEDEMANN, see *Amobia*.

cubæcola JENNICKE, see *Masicera*.

degenera WALKER, see *Echinomyia algens*.

deilephilæ OSTEN SACKEN, see *Winthemia quadripustulata*.

distincta WIEDEMANN, see *Sturmia*.

elegans BIGOT, see *Winthemia*.

demylyus WALKER, see *Admontia*.

disjuncta WIEDEMANN, see *Microphthalma*.

? *distincta* WIEDEMANN, *Analecta* Ent., 45; *Auss. Zw.*, II, 334.—West Indies.

MACQUART, *Dipt. Exot.*, II, 3, 59, refers to *Masicera*.

Query by J. M. A.

dydas WALKER, see *Frontina*.

epicydes WALKER, see *Exorista affinis*.

exul WALKER, see *Schizotachina convecta*.

finitima WALKER, see *Bombyliomyia abrupta*.

fraterna COMSTOCK, see *Frontina alcticæ*.

? *hirta* DRURY, *Illustrations of Nat. Hist.*, 109, pl. XLV, f. 4 (*Musca*).—Jamaica.

Gen. ref. uncertain.—J. M. A.

hirta CURTIS, see *Pelcateria anca*.

? *hybreas* WALKER, *List.* IV, 785 (*Aplomyia*).—Martin Falls, Canada.

COQUILLETT, *Revis. Tachin.*, 119, ref. with a query; not recognized.

insolita WALKER, see *Melanophrys*.

interrupta WALKER, see *Macromcigenia chrysoprocta*.

mella WALKER, *List.* IV, 767 (*mella* and *panatius*); op. cit., 787 (*pansa*).—All Nova Scotia.

LEBARON, *1st Ill. Rept.*, 16 (*orgyia*).—Ill.; bred from *Orgyia leucostigma*.

WILLISTON, in Forbush and Fernald's "The Gypsy Moth," 387 (*Achætoneura fernaldi*).—Mass.; bred from *Porthetria dispar* L.

TOWNSEND, *Psyche*, VI, 83 (*clisiocampæ*); *Trans. Amer. Ent. Soc.*, XIX, 284 (*orgyia*, n. sp.).—Orono, Maine; Morgantown, W. Va.; bred from *Clisiocampa distria* HUEB. and *Orgyia leucostigma* S. and A.

BAKER, *Ent. News*, VI, 174, reared from *Clisiocampa fragilis* at Fort Collins, Col.

BRAUER and BERGENSTAMM, *Zweifel. d. Kaiserl. Mus.*, V, 351 (*Podotachina americana*).—New York.

COQUILLETT, *Revis. Tachin.*, 119.—Toronto, Canada; U. S. generally; bred from *Acronycta populi* RILEY, *Arctia phyllira* DRURY, *Clisiocampa thoracica* STRETCH, *Clis.* sp., *Leucarctia acraea* DRURY, *Orgyia leucostigma* S. and A., and *Pyrharetia isabella* S. and A.

melobosis WALKER, see *Phorocera*.

obconica WALKER, see *Sturmia albifrons*.

? *occidentalis* WIEDEMANN, *Auss. Zw.*, II, 335.—St. Thomas, W. I. Type in Hornbeck's Coll. in Copenhagen. Query by J. M. A.

orgyia LEBARON, see *mella*.

orgyia TOWNSEND, see *mella*.

phycitæ LEBARON, see *Exorista pyste*.

potens WIEDEMANN, see *Leptoda*.

pusilla WIEDEMANN, see *Sarcophilodes*.

robusta TOWNSEND, *Trans. Amer. Ent. Soc.*, XIX, 96 (*Tachinomyia*).—Mich., S. D.

WILLISTON, *Death Valley Exped.*, 256 (*Prosphecrusa similis*).—Sonoma Co., Cal.

COQUILLETT, Revis. Tachin., 118.—Toronto, Canada; U. S. generally; bred from *Agrotis ypsilon* ROTT. and *Clisiocampa* sp.

rufostomata BIGOT, Annales, 1888, 260.—Rocky Mts.

BRAUER, Sitzungsbericht d. K. Akad., CVI, 22, note on type; said to have been first described as *rufostoma*.

rustica FALLÉN, Acta Holmiæ, 1810; Muscides, 5.—Europe.

MEIGEN, Syst. Besch., IV, 305 (*larvarum* L.), 306 (*simulans*), 309 (*luseria*); VII, 193.

MACQUART, Annales Soc. Ent. France, 1854, 377–390 (*vittata*, *flavipalpis*, *ludibunda*, *rectinervis*, *audens*, *flavifrons*, *pumila*, *albifrons*, *alacer*).

TOWNSEND, Trans. Amer. Ent. Soc., XIX, 285 (*tenthredinivora*); XVIII, 353 (*spinulosa*).—Ottawa, Canada; Carlinville, Ill.; bred from a Tenthredinid.

COQUILLETT, Revis. Tachin., 119.—Ottawa, Canada; White Mts., N. H.; Col., S. D., Idaho, Wash., S. Cal.

Montreal—Chagnon; Axton, N. Y.—M. and H.

? **saltatrix** WIEDEMANN, Auss. Zw., II, 300.—W. I. Query by J. M. A.

signifera WALKER, see *Epalpus*.

speculifera WALKER, see *Trichophora*.

? **subvaria** WALKER, Dipt. Saund., 290.—W. I. Genus doubtful—J. M. A.

theciarum SCUDDER, see *Exorista confinis*.

trivittata WIEDEMANN, see *Exorista*.

trixoides WALKER, see *Microphthalma disjuncta*.

unifasciata DESVOIDY, see *Belvosia*.

vivida HARRIS, see *Bombyliomyia abrupta*.

TETRAGRAPHÆ.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., V, 351, 1891; VI, 124, 1893.

tessellata BRAUER and BERGENSTAMM, operis citatis.—Cuba.

TACHINOPSIS.

COQUILLETT, Revis. Tachin., 120, 1897.

mentalis COQUILLETT, Revis. Tachin., 120.—Wash.

DÆOCHÆTA.

TOWNSEND, Trans. Amer. Ent. Soc., XIX, 97, 1892.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 113, 194, 1893.

harveyi TOWNSEND, Trans. Amer. Ent. Soc., XIX, 98.—Orono, Me.

NEOTRACTOCERA.

TOWNSEND, Trans. Amer. Ent. Soc., XIX, 105, 1892.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 196, 1893.

anomala TOWNSEND, Trans. Amer. Ent. Soc., XIX, 105.—Las Cruces, N. M.

DEMOTICUS.

MACQUART, Annales Soc. Ent. France, 1854, 442.

SCHINER, Fauna Austr., I, 433, 1862.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 134, 1889; VI, 137, 1893.

melitææ COQUILLETT, Revis. Tachin., 121.—Siskiyou Co., Cal.; bred from *Melitæa palla*.

- pallidus* COQUILLETT, Revis. Tachin., 121.—Denver, Col.
piperi COQUILLETT, Revis. Tachin., 121.—Blue Mts., Wash.
venatoris COQUILLETT, Canad. Ent., xxvii, 127 (*Drepanoglossa*); Revis. Tachin., 120.—Wash.; Phil., Cal., Col.

PARAPHYTO.

- COQUILLETT, Jour. N. Y. Ent. Soc., iii, 105, 1895.
borealis COQUILLETT, Proc. Wash. Acad. Sci., ii, 439.—Fox Point, Alaska.
chittendeni COQUILLETT, Jour. N. Y. Ent. Soc., iii, 105; Rev. Tachin., 122.—Ithaca, N. Y.; Agricultural College, Mich.
gillettei TOWNSEND, Canad. Ent., xxiv, 68 (*Triva*).—Col.
 COQUILLETT, Revis. Tachin., 122.—Laggan, Canada. N. Ida.—J. M. A.
opaca COQUILLETT, Revis. Tachin., 122.—Col. and Mesilla Park, N. M.
sarcophagina COQUILLETT, Proc. U. S. N. M., xxv, 118.—Carlinville, Ill.

BLEPHARIZEPA.

- MACQUART, Dipt. Exot., ii, 3, 211, 1843.
 BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., vi, 121, 1893 (*Rileya*, preoc.).
 TOWNSEND, Ent. News, iv, 277, 1893, proposes *Rileymyia* for *Rileya*.
 COQUILLETT, Revis. Tachin., 123, 1897 (*Blepharizepa* and *Parachata*).
adusta LOEW, Cent., x, 67.—Cal.; bred from *Leucarcctia acraea* DRURY.
 BIGOT, Annales, 1888, 92 (*fulvipes*).—Wash.
 TOWNSEND, Canad. Ent., xxiv, 64 (*cavul*); Trans. Amer. Ent. Soc., xix, 90 (*rufescens*).—N. H.; Md? Puparium desc. in Amer. Naturalist, April, 1893.
 BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., vi, 121, 204 (*Rileya americana*).—"Sonoma."
 WILLISTON, Dipt. of Death Valley Exped., 256, note.—Sonoma Co., Cal.
 COQUILLETT, Revis. Tachin., 124.—Toronto, Canada; N. Y., Col., Cal.; bred from *Arachnis picta* PACK., *Clisiocampa constricta* and *thoracica* STRETCH, and *Halisidota edwardsii* PACK.
 BRAUER, Sitzungsbericht d. K. Akad., cvi, 20, syn. of *fulvipes* BIGOT and adds *B. albifacies* BIGOT, Annales, 1888, 92, from Brazil; from types.
 Note.—I confirmed the identity of Townsend's two species, from the types.
bicolor MACQUART, see *leucophrys*.
cyaniventris MACQUART, see *Paragadia*.
exul TOWNSEND, see *adusta*.
inermis BIGOT, Annales, 1888, 91.—N. A.
 COQUILLETT, Revis. Tachin., 123 (*Parachata bicolor* MACQ.).—Ithaca and New York, N. Y.
 White Mts., N. H.—Stosson (*Thysanomyia*).
jurinioides TOWNSEND, Trans. Amer. Ent. Soc., xxii, 71.—Jamaica.
leucophrys WIEDEMANN, Auss. Zw., ii, 308 (*Tachina*).—Brazil.
 MACQUART, Dipt. Exot., ii, 3, 55 (*rufipalpis*); Suppl. i, 158 (*bicolor*).—Mex. and Cuba; Texas.
 WALKER, Dipt. Saund., 284 (*Tachina latifrons* and *nigrorufa*).—S. A.; Colombia.
 SCHINER, Novara, 336.
 BIGOT, Sagra's Cuba, 343 (*rufipalpis*).—Cuba.
 WILLISTON, Trans. Amer. Ent. Soc., xiii, 304, oc. in Conn., Pa., San Domingo, and S. A.

VAN DER WULP, Tijdschr. v. Ent., xxvi, 25; Biologia, Dipt., II, 30, pl. II, f. 9 (*Belvosia*).—Mexico, several places; Costa Rica, etc.

TOWNSEND, Canad. Ent., xxiv, 64, oc. in Va. (*bicolor*).

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., vi, 120.—S. A.

GIGLIO-TOS, Ditt. del Mess., III, 28.—Mex.

COQUILLETT, Revis. Tachin., 124.—Franconia, N. H., and Wash.

BRAUER, Sitzungsbericht d. K. Akad., cvii, 30, syn. of *bicolor* MACQ.

Note.—For the *bicolor* of Coquillett's Revision, see *incrimis* BIGOT.

monticola BIGOT, see *Chatogadia*.

nigrisquamis TOWNSEND, Ent. News, III, 80.—Jamaica.

rufipalpis MACQUART, Dipt. Exot., II, 3, 55. see *leucophrys*.

trichopus BIGOT, Bull. Soc. Ent. France, 1887, cxi.—Mex

PARAGÆDIA.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 350, 1891.

cyaniventris MACQUART, Dipt. Exot., Suppl. I, 157, pl. XIII, f. 11; 158 (*rufipalpis*).—Brazil; Guiana. For Macquart's other *B. rufipalpis*, see *B. leucophrys*.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 350 (*hedemanni*).—Mex.

BRAUER, Sitzungsbericht d. K. Akad., cvi, 20, syn.; notes on type; gives Macquart's type locality as Mexico.

WINTHEMIA.

DESVOIDY, Myodaires, 173, 1830.

RONDANI, Dipt. Ital. Prod., I, 66, 1856 (*Chatoliga*).

COQUILLETT, Revis. Tachin., 124, 1897, notes.

ænea BIGOT, see *Phorocera*.

albopicta BIGOT, see *Hypostena*.

antennalis COQUILLETT, Proc. U. S. N. M., xxv, 115; Revis. Tachin., 125 (*nigri-facies* BIGOT).—Los Angeles Co., Cal.

dubia BIGOT, Annales, see *Sturmia*.

elegans BIGOT, in Sagra's Cuba, 810, pl. xx, f. 7 (*Tachina*).—Cuba.

BRAUER, Sitzungsbericht d. K. Akad., cvi, 13, gen. ref. to *Chatolyga*.

erythropyga BIGOT, see *Exorista rufilatera*.

flavolimbata BIGOT, see *Exorista vorax*.

[*fulvidapex* BIGOT, Annales, 1888, 265 (*Tricholygi*).—Mex.? or Celebes?

BRAUER, Sitzungsbericht d. K. Akad., cvi, 24, gen. ref., to *Chatolyga*.]

illinoisensis ROBERTSON, see *quadripustulata*.

nigri-facies BIGOT, see *Exorista*; for Coquillett's *nigri-facies* BIGOT, Revis. Tachin., 125, see *antennalis*.

nigripalpis BIGOT, see *Hypostena*.

nigri-ventris BIGOT, see *Exorista*.

nitidiventris BIGOT, see *Exorista*.

obscura COQUILLETT, Revis. Tachin., 124.—Md.

occidentalis BIGOT, see *Exorista*.

quadripustulata FABRICIUS, Ent. Syst., IV, 324 (*Musca*); Syst. Antl., 309 (*Tachina*).—Europe.

FALLÉN, Acta Holmiæ, 1810 (*Tachina æstivans*); Muscides, 30 (id.).

MEIGEN, Syst. Besch., IV, 255 (*Tachina*); VII, 221, refers to *Nemoræa*.

MACQUART, Hist. Nat. Dipt., II, 103 (*Nemoræa*).

ZETTERSTEDT, Ins. Lapp., 643; Dipt. Scand., III, 1103 (*Tachina*).

DESVOIDY, Annales Soc. Ent. France, 1847, 270 (*cinerea*).

KIRKPATRICK, Ohio Agric. Rept. for 1860, 757 (*Exorista leucaniæ* and *ostensackenii*).—Ohio; bred from *Leucania unipuncta*.

SCHINER, Fauna Austr., i, 453 (*Nemoræa*).

RILEY, 2d Mo. Rept., 51 (*leucaniæ*).—Mo. General Index Mo. Repts., 60, note on "var. *cecropiæ*."

WALSH, Trans. Ill. State Agric. Soc., iv, 367 (*Senometopia militaris*).—Ill.

RILEY, PACKARD, and THOMAS, 3d Rept. U. S. Ent. Comm., 126, pl. 1, f. 7, note on habits;—attacks the Army Worm.

WILLISTON, Ill. Ent. Rept., 65, 1885 (*Exorista infesta*).

OSTEN SACKEN, Canad. Ent., xix, 164 (*Tachina deilephilæ*).—No locality; bred from *Deilephila lineata*.

TOWNSEND, Trans. Amer. Ent. Soc., xviii, 363 (*Exorista ciliata*); xix, 283 (*Exorista platysamiæ* and *datanæ*).—Carlinville, Ill.; Ithaca, N. Y.; Ithaca, N. Y. Bred from *Attacus cecropia* and *Datana* sp.

COQUILLETT, Revis. Tachin., 125.—London, Ont.; U. S. generally, very common; bred from 14 host species.

ROBERTSON, Canad. Ent., xxxiii, 286 (*illinoisensis*).—Ill.

STEDMAN, 34th Rept. State Bd. of Agric. of Mo., 105, 1902, fig. and notes.

rufonotata BIGOT, Annales, 1888, 257 (*Chatolyga*).—Rocky Mts.

BRAUER, Sitzungsbericht d. K. Akad., cvi, 21, note on type; gen. ref.

rufopicta BIGOT, Annales, 259, 1888 (*Chatolyga*).—Rocky Mts.

BRAUER, Sitzungsbericht d. K. Akad., cvi, 21, note on type; gen. ref.

MUSCOPTERYX.

TOWNSEND, Canad. Ent., xxiv, 170, 1892.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., vi, 186, 1893, notes.

chætosula TOWNSEND, Canad. Ent., xxiv, 171.—Chihuahua, Mex.

COQUILLETT, Revis. Tachin., 125.—Mo.

obscura COQUILLETT, Proc. U. S. N. M., xxv, 116.—St. Paul Id., Alaska.

tibialis COQUILLETT, Proc. U. S. N. M., xxv, 115.—Moscow and Juliatta, Idaho.

PARADIDYMA.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 382, 1891; vi, 184, 1893, additional desc.

TOWNSEND, Trans. Amer. Ent. Soc., xviii, 373, 1891 (*Atrophopoda*); xix, 103, 1892 (*Lachnomma*); xxii, 77, note.

WILLISTON, Trans. Ent. Soc. Lond., 1896, 356, table of species (*Atrophopoda*).

COQUILLETT, Revis. Tachin., 126, 1897, syn. and notes.

braueri WILLISTON, Trans. Ent. Soc. Lond., 1896, 357, pl. xi, f. 94 (*Atrophopoda*).—St. Vincent, W. I.

singularis TOWNSEND, Trans. Amer. Ent. Soc., xviii, 374 (*Atrophopoda*); xix, 104 (*Lachnomma magnicornis*); xxii, 77, note.—Carlinville, Ill.; Las Cruces, N. M.

COQUILLETT, Revis. Tachin., 126.—U. S. generally.

townsendi WILLISTON, Trans. Ent. Soc. Lond., 1896, 356, pl. xi, f. 93 (*Atrophopoda*).—St. Vincent, W. I.

validinervis VAN DER WULP, Biologia, Dipt., ii, 164 (*Didyma*).—Guerrero, Mex.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 404, gen. ref.; vi, 127, desc.

ATROPHOPALPUS.

TOWNSEND, Ent. News, III, 130, 1892.

angusticornis TOWNSEND, Ent. News, III, 130.—S. Fla.

COQUILLETT, Revis. Tachin., 126.—Lake Worth, Fla.

Inverness, Fla.—Johnson.

METACHÆTA.

COQUILLETT, Jour. N. Y. Ent. Soc., III, 98, 1895.

helymus WALKER, List, IV, 795 (*Tachina*).—Maine.

COQUILLETT, Jour. N. Y. Ent. Soc., III, 99 (*atra*); Revision Tachin., 126.—
Franconia, N. H., and N. Ill.; Toronto, Can., Col., and Santa Cruz
Mts., Cal.

N. J.—Smith Cat.; Montreal—Chagnon.

PENTHOSIA.

VAN DER WULP, Tijdschr. v. Ent., XXXV, 189, 1892.

TOWNSEND, Canad. Ent., XXV, 167, 1893, notes.

VAN DER WULP, Biologia, Dipt., II, 457, 1903.

satanica BIGOT, Annales, 1888, 254 (*Scopolia*).—Mex.

VAN DER WULP, Tijdschr. v. Ent., XXXV, 190, gen. ref.

GIGLIO-TOS, Ditt. del Mess., III, 7, f. 1.—Orizaba, Mex.

TOWNSEND, Annals and Mag. Nat. Hist., XIX, 32.—San Rafael, near Vera
Cruz, Mex.

VAN DER WULP, Biologia, Dipt., II, 458, pl. XIII, f. 18.—Guerrero, Tabasco
and Jalisco, Mex.

PHORICHÆTA.

RONDANI, Dipt. Ital. Prod., IV, 8, 1861.

DESVOIDY, Myodaires, 268, 1830 (*Scopolia*, preoc.).

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 106, 1889; V, 356,
1891; VI, 148, 1893.

cinerosa COQUILLETT, Proc. U. S. N. M., XXV, 116.—Flagstaff, Ariz.

? **lateralis** MACQUART, Dipt. Exot., II, 3, 71, pl. VIII, f. 3 (*Scopolia*).—America—
may be *S. A.*

COQUILLETT, Rev. Tachin., 127, gen. ref. with a query.

nigra BIGOT, in Sagra's Cuba, 814, pl. XX, f. 8 (*Scopolia*).—Cuba.

satanica BIGOT, see *Penthosia*.

sequax WILLISTON, in Cook's Notes on Injurious Insects (Mich.), p. 5, 1884
(*Scopolia*).—Lansing, Mich.; bred from *Noctua fennica* TAUSCH.

COQUILLETT, Revis. Tachin., 126.—N. H. to British Columbia and Cal.;
bred from a Noctuid. N. J.—Smith Cat.

CESTONIA.

RONDANI, Dipt. Ital. Prod., IV, 105, 1861.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 228, 1893, may
be same as *Erynnia* DESV.

nigra BIGOT, Annales, 1888, 259.—Mex.

CHÆTOPLAGIA.

COQUILLETT, Jour. N. Y. Ent. Soc., III, 98, 1895.

atripennis COQUILLETT, Jour. N. Y. Ent. Soc., III, 98; Revis. Tachin., 127.—
Westville, N. J., and D. C.; S. Ill.

METOPIA.

MEIGEN, Illig. Mag., II, 280, 1803.

DESVOIDY, Myodaires, 120, 1830 (*Ophelia*).

SCHINER, Fauna Austr., I, 498, 1862.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 114, 1889; VI, 168, 1893.

VAN DER WULP, Biologia, Dipt., II, 114, pt. desc., 1890.

leucocephala ROSSI, Fauna Etrusca, II, 1501 (*Musca*).—Europe.

FABRICIUS, Ent. Syst., IV, 329 (*Musca labiata*); Syst. Antl., 304 (id.).

LATREILLE, Dict. d'Hist. Nat., 24, 195 (id.).

DESVOIDY, Myodaires, 130 (*Araba squamipallens*); 131 (*A. grisea*).

? MACQUART, Dipt. Exot., Suppl. III, 208, pl. v, f. 6 (*Degccria lateralis*).—

N. A. [Coquillett, but I question it.]

ZETTERSTEDT, Ins. Lapp., 635 (*Tachina argyrocephala*); Dipt. Scand., III, 1026 (*Tachina*).

SCHINER, Fauna Austr., I, 499.

? WALKER, List, IV, 770 (*Ophelia rychus*).—Jamaica. [J. M. A.]

TOWNSEND, Canad. Ent., XXIV, 69 (*luggeri*).—Minn.

COQUILLETT, Revis. Tachin., 127.—N. H. to Texas; Wash., Cal.

RIEDEL, Allg. Zeitsch. f. Ent., VI, 152, parasitic on *Halictus sexcinctus* FAB. in Pomerania.

BIGNELL, Ent. Mag., XXXIII, 221, says it is viviparous.

MELANDER and BRUES, Biol. Bull., v, 20, is parasitic in nests of *Halictus priunus* RETSN. at Woods Hole, Mass.

Axton, N. Y.—M. and H.

perpendicularis VAN DER WULP, Biologia, Dipt., II, 115, pl. III, f. 18.—Guerrero and Morelos, Mex.

GIGLIO-TOS, Ditt. del Mess., III, 43.—Solco, Mex.

ARABA.

DESVOIDY, Myodaires, 127, 1830.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 114, 1889 (*Eumetopia*); V, 359, 1891; VI, 168, 1893.

nebulosa COQUILLETT, Canad. Ent., XXXIV, 200.—Sierra Madre, Chihuahua, Mex.

tergata COQUILLETT, Jour. N. Y. Ent. Soc., III, 103; Revis. Tachin., 127.—Ill., Cal., Los Angeles Co., Cal. N. J.—Smith Cat.

OPSIDIA.

COQUILLETT, Jour. N. Y. Ent. Soc., III, 102, 1895.

gonioides COQUILLETT, loc. cit.; Revis. Tachin., 128.—Atlantic City, N. J.; Mass. and Ia.

HILARELLA.

RONDANI, Dipt. Ital. Prod., I, 70, 1856.

SCHINER, Fauna Austr., I, 504, 1862.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 114, 1889; VI, 168, 1893.

TOWNSEND, Trans. Amer. Ent. Soc., XIX, 98 and 108, 1892 (*Eumacronychia* and *Gymnoprosope*).

COQUILLETT, Revis. Tachin., 128, 1897, notes and syn.

aristalis COQUILLETT, Revis. Tachin., 129.—S. Ill. and Cal.

decens TOWNSEND, Trans. Amer. Ent. Soc., XIX, 33 (*Eumacronychia*).—Las Cruces, N. M., and Cal.

COQUILLETT, Revis. Tachin., 128.—N. M. and Los Angeles Co., Cal.
N. J.—Smith Cat.

elita TOWNSEND, Trans. Amer. Ent. Soc., XIX, 100; XXII, 74, notes (both *Eumacronychia*).—Las Cruces, N. M.

COQUILLETT, Rev. Tachin., 129, gen. ref.: not seen.

fulvicornis COQUILLETT, Jour. N. Y. Ent. Soc., III, 106 (*Gymnoprosope*); Rev. Tach., 128.—N. J. and N. Ill.; N. H., Mass.; from a puparium found among locust eggs.

polita TOWNSEND, Trans. Amer. Ent. Soc., XIX, 109 (*Gymnoprosope polita*, *argentifrons*, and *clarifrons*).—S. Fla.; S. Fla.; Carlinville, Ill.

COQUILLETT, Revis. Tachin., 128.—Ill., Ga., Fla.

Note.—I confirmed the identity of Townsend's species with each other, from the types.

N. J.—Smith Cat.; Enterprise, Fla.—Castle and Laurent; Inverness, Fla.—Johnson.

rufiventris COQUILLETT, Revis. Tachin., 129.—Holly Springs, Miss.

siphonina ZETTERSTEDT, Dipt. Scand., III, 1213 (*Miltogramma*).—Europe.

DESVOIDY, Myodaires, 95 (*Megara dira*). [Schiner; the prior name if , synonymy is sufficiently secure.]

SCHINER, Fauna Austr., I, 504.

COQUILLETT, Revis. Tachin., 129.—N. J., Ga., Col., Cal.

TRICHOGENA.

RONDANI, Dipt. Ital. Prod., I, 88, 1856 (*Thricogena*).

EGGER, Verh. Zool.-Bot. Ges., XV, 297, 1865 (*Frauenfeldia*).

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 238, 1893.

costalis COQUILLETT, Revis. Tachin., 130.—Col.

setipennis COQUILLETT, Revis. Tachin., 130.—Franconia, N. H.

BRACHYCOMA.

RONDANI, Dipt. Ital. Prod., I, 69, 1856; III, 203, 1859.

VAN DER WULP, Biologia, Dipt., II, 90, 1890, pt. desc. and table of Mexican species.

TOWNSEND, Trans. Amer. Ent. Soc., XVIII, 1895 (*Laccoprosope*); XIX, 110, 1892 (*Sarcotachinella*).

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 161 and 197, 1893.

COQUILLETT, Revis. Tachin., 131, 1897, notes, etc.

GIRSCHNER, Wien. Ent. Zeit., XVII, 153, 1898.

afra VAN DER WULP, Biologia, Dipt., II, 92.—Tabasco, Mex.

apicalis COQUILLETT, Revis. Tachin., 131.—Conn. and Va.

barbatula VAN DER WULP, Biologia, Dipt., II, 98.—Guerrero, Mex.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., V, 334 and 401, notes.

biseriata VAN DER WULP, Biologia, Dipt., II, 95.—Guerrero, Vera Cruz and Tabasco, Mex.

chihuahuaensis TOWNSEND, Canad. Ent., XXIV, 165.—Chihuahua, Mex.

cinerea VAN DER WULP, Biologia, Dipt., II, 100.—Vera Cruz, Mex.

davidsoni COQUILLETT, Ent. News, V, 172.—Los Angeles Co., Cal.; bred from larvæ of *Bombus fervidus* FABR.

COQUILLETT, Revis. Tachin., 131.—S. Cal.

fimbriata VAN DER WULP, Biologia, Dipt., II, 97.—Guerrero and Vera Cruz, Mex.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., V, 365, would put this in *Thysanomyia*.

foveata VAN DER WULP, *Biologia*, Dipt., II, 93, pl. III, f. 12.—Tabasco, Mex.

incompta VAN DER WULP, *Biologia*, Dipt., II, 99.—Guerrero, Mex.

intermedia TOWNSEND, *Trans. Amer. Ent. Soc.*, XIX, 111 (*Sarcotachinella*).—
Carlinville, Ill.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, VI, 197, note on position.

COQUILLETT, *Revis. Tachin.*, 132.—N. J., Va., Ga., Fla.

Charlotte Harb., Fla.—Johnson.

irregularis VAN DER WULP, *Biologia*, Dipt., II, 98.—Tabasco, Mex.

laticeps VAN DER WULP, see *Atacta brasiliensis*.

longicornis VAN DER WULP, *Biologia*, Dipt., II, 99.—Vera Cruz, Mex.

macropogon BIGOT, see *Masistylum*.

nigripalpis VAN DER WULP, see *Atacta*.

pallidula VAN DER WULP, see *Comatacta*.

pubicornis COQUILLETT, *Proc. U. S. N. M.*, XXV, 116.—Harrison, Idaho.

pulverea COQUILLETT, *Revis. Tachin.*, 131.—San Diego, Texas.

pygmæa VAN DER WULP, *Biologia*, Dipt., II, 95.—Guerrero, Mex.

robusta VAN DER WULP, *Biologia*, Dipt., II, 92.—Guerrero and Vera Cruz, Mex.

ruficauda VAN DER WULP, *Biologia*, Dipt., II, 94.—Vera Cruz, Mex.

sarcophagina TOWNSEND, *Trans. Amer. Ent. Soc.*, XVIII, 366 (*Laccoprosopa*).—
Carlinville, Ill. *

COQUILLETT, *Revis. Tachin.*, 132.—N. J., S. Ill.

setosa COQUILLETT, *Proc. U. S. N. M.*, XXV, 117.—Beulah, N. M.

sheldoni COQUILLETT, *Canad. Ent.*, XXX, 236.—Oswego, N. Y.

spuria VAN DER WULP, *Biologia*, Dipt., II, 101.—Guerrero, Mex.

striatella VAN DER WULP, *Biologia*, Dipt., II, 100.—Guerrero and Tabasco, Mex.

sublucens VAN DER WULP, *Biologia*, Dipt., II, 96.—Mexico City.

subtilpalpis VAN DER WULP, *Biologia*, Dipt., II, 96.—Guerrero and Vera Cruz,
Mex.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, V, 365, would refer
this to *Argyrophylax*.

trifida VAN DER WULP, *Biologia*, Dipt., II, 96.—Guerrero, Mex.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, V, 365, would place
this in *Argyrophylax*.

EUTHYPROSOPA.

TOWNSEND, *Trans. Amer. Ent. Soc.*, XIX, 106, 1892.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, VI, 196, 1893.

petiolata TOWNSEND, loc. cit.—Las Cruces, N. M.

COQUILLETT, *Revis. Tachin.*, 132.—Las Cruces, N. M.

GONIA.

MEIGEN, *Illig. Mag.*, II, 280, 1803; *Syst. Besch.*, V, 1, 1826.

DESVOIDY, *Myodaires*, 1830, 74 (*Rhedia*); 79 (*Reaumuria*); *Annales Soc.*
Ent. France, 1851, 315 (*Isomera*); 318 (*Pissemya*).

SCHINER, *Fauna Austr.*, I, 441, 1862.

WILLISTON, *Canad. Ent.*, XIX, 6, 1887, desc. and table of species.

SNOW, *Kans. Univ. Quart.*, III, 180.

COQUILLETT, *Revis. Tachin.*, 132, 1897.

? *auriceps* MEIGEN, *Syst. Besch.*, V, 5.—Europe.

WALKER, *List*, IV, 798, oc. in Ga.—very doubtful.

✓ *capitata* DEGEER, *Mém. Hist. Nat. Ins.*, VI, 12, pl. I, f. 3 (*Musca*).—Europe.

- FALLÉN, Muscides, II (*Tachina*).
 MEIGEN, Syst. Besch., v, 3.
 SAY, Jour. Acad. Sci. Phil., VI, 175; Compl. Works, II, 365 (*frontosa*).—Upper Missouri R., U. S.
 MACQUART, Dipt. Exot., II, 3, 208 (*philadelphica*).—Pa.
 WALKER, List, IV, 798 (*albifrons*).—Martin Falls, Canada.
 SCHINER, Fauna Austr., I, 443.
 WILLISTON, Canad. Ent., XIX, 11 and 12 (*exul* and *sequax*).—Conn., Mass., N. Y.; Cal. I follow Coquillett in making these synonymous, but Williston does not accept this disposition of the species.
 COQUILLETT, Revis. Tachin., 133.—Toronto, Canada; U. S. generally, very common; bred from *Hadena devastatrix* BRACE, *Laphygma frugiperda* S. and A., and *Peridroma saucia* HUEB.
 BRAUER, Sitzungsbericht d. K. Akad., CVI, 24, notes on type of Macquart.
 Beulah, N. M.—Skinner; Province of Quebec—Fyles.
chilensis MACQUART, see *pallens*.
crassicornis FABRICIUS, Syst. Antl., 301 (*Musca*).—W. I.
 WIEDEMANN, Auss. Zw., II, 345.—W. I.
exul WILLISTON, see *capitata*.
frontosa SAY, see *capitata*.
mexicana VAN DER WULP, Biologia, Dipt., II, 40, pl. 19, 20; p. 479, oc.—Ciudad in Durango and Guerrero, Mex.
pallens WIEDEMANN, Auss. Zw., II, 346.—Brazil.
 MACQUART, Dipt. Exot., II, 3, 50 (*pallens* and *chilensis*); 51 (*angusta*); Suppl. IV, 2, 178 (*lineata*).—Brazil; Chili and Cuba; unknown; Patagonia.
 BLANCHARD, in Gay's Hist. fis. etc. Chile, VII, 242, Atlas, pl. IV, f. 20 (*chilensis*).—Chili.
 WALKER, List, IV, 798 (*angusta*), oc. in Jamaica.
 VAN DER WULP, Tijdschr. v. Ent., XXVI, 23; Biologia, Dipt., II, 39, syn., etc.—N. M.; Durango, Mex.
 LYNCH ARRIBALZAGA, An. Soc. Cient. Argent., X, p. viii.
 WILLISTON, Trans. Ent. Soc. Lond., 1896, 353, pl. XI, f. 90, syn. and desc.—St. Vincent, W. I. Porto Rico—Roeder.
porca WILLISTON, Canad. Ent., XIX, 10.—Ore., Mt. Hood.
sagax TOWNSEND, see *senilis*.
senilis WILLISTON, Canad. Ent., XIX, 10.—W. Kans.
 TOWNSEND, Canad. Ent., XXIV, 65 (*sagax*).—Ames, Ia.
 COQUILLETT, Revis. Tachin., 133.—Md., Mo., Ga. N. J.—Smith Cat.
sequax WILLISTON, see *capitata*.
turgida COQUILLETT, Revis. Tachin., 133.—Los Angeles Co., Cal.

SPALLANZANIA.

- DESVOIDY, Myodaires, 78, 1830.
 RONDANI, Dipt. Ital. Prod., I, 62, 1856 (*Cnephalia*).
 WILLISTON, Scudder's Butterflies of New England, III, 1916, 1889 (*Acroglossa*).
 BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 100, 1889 (*Pseudogonia*); VI, 214, 1893.
 SNOW, Kans. Univ. Quart., III, 181, 1895 (*Cnephalia*).
 GIGLIO-TOS, Ditt. del Mess., III, 34, 1894.
 COQUILLETT, Psyche, 1895, 261, syn.; Revis. Tachin., 134, 1897.

- antennalis** COQUILLETT, Revis. Tachin., 135.—Alameda Co., Cal.
finitima SNOW, Kans. Univ. Quart., III, 184 (*Cnephalia*).—N. M.
hebes FALLÉN, Muscides, 11 (*Tachina*).—Europe.
 DESVOIDY, Myodaires, 79 (*gallica*); Annales Soc. Ent. France, 1851, 315 (*Isomera parisiaca*).
 MACQUART, Dipt. du Nord de la France, v, 179 (*Gonia nudifacies*).
 RONDANI, Dipt. Ital. Prod., III, 38 (*Gonia cognata*); IV, 155 (*alpestris*).
 SNOW, Kans. Univ. Quart., III, 182 (*Cnephalia pansa*).—N. M., 9,500 ft.
 KOWARZ, Wien. Ent. Zeit., VII, 6, syn.
 BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 125.
 COQUILLETT, Revis. Tachin., 135.—N. C., Ga., Fla.
hesperidarum WILLISTON, in Scudder's Butterflies of New England, 1917 (*Acroglossa*).—N. H.; bred from *Eudamus tityrus* FABR.
 TOWNSEND, Canad. Ent., XXIV, 66 (*Pseudogonia ruficauda* and *obsoleta*).—Brookings, S. D.; N. Y.
 SNOW, Kans. Univ. Quart., III, 183 (*Cnephalia ruficauda*).—Ill., Kans., N. H., Mass., N. C., N. Y., S. D.
 COQUILLETT, Psyche, 1895, 261, syn.; Revis. Tachin., 134.—N. H. to S. D. and Ga. Montreal—Chagnon: Inverness, Fla.—Johnson.
obesula VAN DER WULP, Biologia, Dipt., II, 46, pl. III, f. 3 (*Cnephalia*).—Tabasco, Mex.
obsoleta TOWNSEND, see *hesperidarum*.
ochriceps VAN DER WULP, Tijdschr. v. Ent., XXXV, 194 (*Cnephalia*); Biologia, Dipt., II, 481.—Jalisco and Guerrero, Mex.
ochriventris VAN DER WULP, Biologia, Dipt., II, 47 (*Cnephalia*).—Guerrero, Mex.
onusta VAN DER WULP, Biologia, Dipt., II, 46, pl. III, f. 4 (*Cnephalia*).—Atoyac in Vera Cruz, Mex.
ruficauda TOWNSEND, see *hesperidarum*.
tessellata GIGLIO-TOS, see *Chatogaedia vilis*.

EUCNEPHALIA.

- TOWNSEND, Canad. Ent., XXIV, 166, 1892.
 BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 186, 1893, notes.
 SNOW, Kans. Univ. Quart., III, 185, 1895, important notes on the type.
gonoides TOWNSEND, Canad. Ent., XXIV, 167.—Dona Ana Co., N. M.
 SNOW, Kans. Univ. Quart., III, 185.

GÆDIOPSIS.

- BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 336, 1891; VI, 190, 1893.
 COQUILLETT, Revis. Tachin., 136, 1897, note.
cockerelli COQUILLETT, Proc. U. S. N. M., XXV, 117.—White Mts., N. H., 8,000 ft.
facialis COQUILLETT, Proc. U. S. N. M., XXV, 117.—Ga.
flavipes COQUILLETT, Jour. N. Y. Ent. Soc., III, 100; Revis. Tachin., 136.—Ga., Ala.
mexicana BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 336; VI, 190.—Mex.
 COQUILLETT, Revis. Tachin., 136.—Philadelphia.
monticola TOWNSEND, Psyche, 1898, 260.—Organ Mts., N. M., 8,500 ft.
ocellaris COQUILLETT, Proc. U. S. N. M., XXV, 118.—Ohio.
setosa COQUILLETT, Revis. Tachin., 136.—Siskiyou Co., Cal.; from chrysalis of a Noctuid.

CHÆTOGÆDIA.

- BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 336, 1891.
 COQUILLET, Revis. Tachin., 137, 1897, note.
- analys** VAN DER WULP, Tijdschr. v. Ent., x, 148, pl. iv, f. 21-23 (*Baumhaueria*).
 —Wis.
 TOWNSEND, Trans. Amer. Ent. Soc., xviii, 367 (*Frontina acroglossoides*).
 —Carlinville, Ill.
 COQUILLET, Revis. Tachin., 137.—D. C. and Mescalero, N. M.
- crebra** VAN DER WULP, Biologia, Dipt., ii, 120 (*Prospherysa*).—Guerrero, Mex.
 BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 336, refer here.
 COQUILLET, Revis. Tachin., 137.—Las Cruces, N. M., and Cal.; bred from
Agrotis sp. and *Tæniocampa rufula* GROTE.
 Beulah, N. M.—Skinner.
- monticola** BIGOT, Annales, 1888, 91 (*Blepharipexa*).—Rocky Mts.
 COQUILLET, Revis. Tachin., 137.—Cal. and Hawaii; bred from *Carneades*
 sp. in Hawaii, in Cal. from *Peridroma saucia* HUEB. and *Pyramcis car-*
dui LINN.
- rufifrons** VAN DER WULP, Biologia, Dipt., ii, 121 (*Prospherysa*).—Chilpancingo,
 Mex.
 COQUILLET, Revis. Tachin., 137.—Santa Fe, N. M.
- vilis** VAN DER WULP, Biologia, Dipt., ii, 121 (*Prospherysa*).—Guerrero, Mex.
 BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 336, gen. ref.; vi,
 116, desc.
 GIGLIO-TOS, Boll. R. Univ. Torino, viii, No. 158, 1893; Ditt. del Mess.,
 iii, 35 (*Acroglossa tessellata*).—Oaxaca, Mex. [Coq.]

BAUMHAUERIA.

- MEIGEN, Syst. Besch., vii, 251, 1838.
 SCHINER, Fauna Austr., i, 494, 1862.
 VAN DER WULP, Biologia, Dipt., ii, 115, 1890, pt. desc.
- analys** VAN DER WULP, see *Chatogadia*.
- discrepans** VAN DER WULP, Biologia, Dipt., ii, 115, pl. iii, f. 17.—Cuernavaca,
 Mex.

DICHOCERA.

- WILLISTON, Ent. News, vi, 31, 1895.
 MIK, Wien. Ent. Zeit., 1896, 54.
 BRAUER, Sitzungsbericht d. K. Akad., cvii, 521, notes on position of the
 genus, 1898.
Note.—Mik's published conclusions about the relationships of the genus
 were written before he had seen the species; he wrote me afterward that
 they were erroneous.
- WILLISTON, Kans. Univ. Quart., iv, 171, has an article on "Fissicorn
 Tachinidæ," describing several cases from other parts of the world.
- lyrata** WILLISTON, Ent. News, vi, 29.—Moscow, Idaho.
 COQUILLET, Revis. Tachin., 137.—Wash.
 Wyoming—Wheeler; S. Dak.—J. M. A. See also the article by Brauer,
 cited as a generic reference.
- orientalis** COQUILLET, Revis. Tachin., 137.—Beverly, Mass.

MICROPHTHALMA.

- MACQUART, Dipt. Exot., ii, 3, 84, 1843.
- calogaster** BIGOT, see *Macrometopia*.

disjuncta WIEDEMANN, *Analecta Ent.*, 45 (*Tachina*); *Auss. Zw.*, II, 295 (id.).—N. A.

SAY, *Jour. Acad. Sci. Phil.*, VI, 174; *Compl. Works*, II, 363 (*Miltogramma trifasciata*).—Ind.

MACQUART, *Dipt. Exot.*, II, 3, 242, pl. x, f. 2 (*nigra*).—N. A.

WALKER, *List*, IV, 760 (*Tachina trixoides*).—Ga.

TOWNSEND, *Trans. Amer. Ent. Soc.*, XIX, 111 (*Megaprosopus michiganensis*).—Mich.

COQUILLETT, *Jour. N. Y. Ent. Soc.*, VII, 218, syn.; *Revis. Tachin.*, 138.—N. H. to Ga. and Cal.; S. D.; bred from *Lachnosterna arcuata* SMITH.

WILLISTON, *Trans. Amer. Ent. Soc.*, XIII, 306 (*nigra*).—Pa., New England, Kans.

pruinosa COQUILLETT, *Canad. Ent.*, 1902, 200.—White Mts., New Mexico; Chihuahua, Mex.

sordida GIGLIO-TOS, *Boll. R. Univ. Torino*, VIII, No. 158, 1893; *Ditt. del Mess.*, III, 63.—Toluca, Mex.

AMOBIA.

DESVOIDY, *Myodaires*, 96, 1830.

RONDANI, *Dipt. Ital. Prod.*, III, 229, 1859 (*Macronychia*).

TOWNSEND, *Trans. Amer. Ent. Soc.*, XIX, 102, 1892 (*Trioxoclista*).

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, VI, 226, 1893 (*Amobia*, preoc.); IV, 163, 1889 (*Angiorhina*).

COQUILLETT, *Revis. Tachin.*, 138, 1897, notes.

aurata COQUILLETT, *Proc. U. S. N. M.*, XXV, 119.—N. H., Wis., N. Ida.

californica COQUILLETT, *Jour. N. Y. Ent. Soc.*, III, 100; *Revis. Tachin.*, 139.—Los Angeles Co., Cal.

crudelis WIEDEMANN, *Auss. Zw.*, II, 300 (*Tachina*).—W. I.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, V, 362, refer to *Angiorhina*.

distincta TOWNSEND, *Trans. Amer. Ent. Soc.*, XIX, 103 (*Trioxoclista*).—Carlinville, Ill.

COQUILLETT, *Revis. Tachin.*, 138.—London, Ont., N. H., Col., Wash.; bred from *Acronycta dactylina* GROTE.

GYMNOMMA.

VAN DER WULP, *Biologia, Dipt.*, II, 38, 1888.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, V, 383, 1891; VI, 136, 214, 1893.

discors VAN DER WULP, *Tijdschr. v. Ent.*, XXV, 193; *Biologia, Dipt.*, II, 477.—Guerrero, Mex.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, V, 406, oc. in Col.

nitidiventris VAN DER WULP, *Biologia, Dipt.*, II, 38, pl. v, f. 17.—Ciudad in Durango, Mex.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, V, 406; VI, 136, pt. desc.—Brazil.

nova GIGLIO-TOS, *Boll. R. Univ. Torino*, VIII, No. 158, 1893; *Ditt. del Mess.*, III, 12, f. 2.—Mex.

quadrisetosa COQUILLETT, *Proc. U. S. N. M.*, XXV, 120.—Sierra Madre Mts., Mex., 7,300 ft.

TROCHILODES.

COQUILLETT, *Trans. Amer. Ent. Soc.*, XXIX, 102, 1903.

skinneri COQUILLETT, loc. cit.—Beulah, N. M.

TRICHOPHORA.

- MACQUART, Dipt. Exot., Suppl. iv, 2, 62, 1847.
 RONDANI, Nuovi Ann. Sc. Nat. Bologna, II, 169, 1850 (*Elachipalpus*).
 VAN DER WULP, Biologia, Dipt., II, 35, 1888, def. and table of species in Mexico; p. 475, 1903, second table of species.
 BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 137 and 214, 1893.
 TOWNSEND, Trans. Amer. Ent. Soc., XXII, 73, 1895.
 COQUILLETT, Revis. Tachin., 139, 1897.
- analis** SCHINER, Novara, 330.—S. A.
 BIGOT, Bull. Soc. Ent. France, Jan. 14, 1885, p. 2 (*Siphoniomyia melas*).—Mex.
 BRAUER, Sitzungsbericht d. K. Akad., CVI, 31, syn.
 VAN DER WULP, Biologia, Dipt., II, 475 (*melas* BIG.).—Mex.; from Bigot's type.
- convexinervis** VAN DER WULP, Tijdschr. v. Ent., XXXV, 193; Biologia, Dipt., II, 476.—Guerrero, Mex.
- fucata** VAN DER WULP, see *Cuphocera*.
- macrocera** WIEDEMANN, Auss. Zw., II, 290 (*Tachina*).—Brazil.
 WILLISTON, Trans. Ent. Soc. Lond., 1896, 352, pl. XI, f. 99, oc. in St. Vincent, W. I. (*Elachipalpus*).
 Jamaica—Johnson (id.).
- miscelli** COQUILLETT, Revis. Tachin., 139.—Los Angeles Co., Cal.; bred from *Adisophanes miscellus* GROTE.
- nigrifrons** BIGOT, Bull. Soc. Ent. France, 1887, cxli (*Elachipalpus*).—Mex.
- nitidifrons** VAN DER WULP, Biologia, Dipt., II, 37 and 477, note.—Mexico, several places.
- ruficauda** VAN DER WULP, Tijdschr. v. Ent., X, 146 (*Schinceria*).—Wis.
 BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., V, 406 (*Elachipalpus undulata* SAY-WB.—a manuscript name, explained in Coquillett's Revis., p. 139).—S. C.; no desc.
 WILLISTON, Trans. Amer. Ent. Soc., XIII, 305 (*Cuphocera*), oc. in E. States.
 COQUILLETT, Revis. Tachin., 139.—Pa. to Fla.; S. D. to Texas.
- rufina** VAN DER WULP, Biologia, Dipt., II, 36, pl. II, f. 15; p. 475, oc.—Guatemala; Costa Rica; Vera Cruz, Mex.
- ? **speculifera** WALKER, List, IV, 731 (*Cuphocera*).—N. A. Query by J. M. A.
- trisetosa** VAN DER WULP, Biologia, Dipt., II, 36, pl. II, f. 16; p. 476, oc. and notes.—Costa Rica; Tampico and Atoyac, Mex.

CUPHOCERA.

- MACQUART, Annales Soc. Ent. France, 1845, 267.
 RONDANI, Annali Nat. Napoli, 1845 (*Palpibraca*); Dipt. Ital. Prod., I, 63, 1856; III, 60, 1859.
 SCHINER, Fauna Austr., I, 427, 1862.
 COQUILLETT, Revis. Tachin., 140, 1897, notes.
 Note.—See Van der Wulp, Biologia, Dipt., II, 35, for discussion of relations of this genus and *Trichophora*.
- californiensis** MACQUART, Dipt. Exot., Suppl. IV, 2, 148 (*Micropalpus*).—Cal.
 COQUILLETT, Revis. Tachin., 140.—Lake Worth, Fla., and Cal.
 BRAUER, Sitzungsbericht d. K. Akad., CVII, 11, confirms gen. ref.; notes.
 Beulah, N. M.—Skinner.
- fucata** VAN DER WULP, Tijdschr. v. Ent., XXXV, 193 (*Trichophora*); Biologia, Dipt., II, 476 (id.).—Vera Cruz and Tabasco, Mex.

COQUILLETT, Revis. Tachin., 140.—N. H., Mass., N. J., N. Ill.
Montreal—Chagnon.

ruficauda VAN DER WULP, see *Trichophora*.

GÆDIOPHANA

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 201, 1893.

atra BRAUER and BERGENSTAMM, loc. cit.—Mex.

PELETERIA.

DESVOIDY, Myodaires, 39, 1830.

BIGOT, Bull. Soc. Ent. France, 1883, 108 (*Sphyromyia*).

MIK, Wien. Ent. Zeit., XIII, 100, 1894 (*Chatopcleteria*).

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VII, 611, 1894 (*Tetrachata*).

COQUILLETT, Revis. Tachin., 140, 1897, notes.

ænea STÆGER, in Zetterstedt's Dipt. Scand., VIII, 3217 (*Echinomyia*).—Greenland.

GERSTÆCKER, Zweite Nordpohlfahrt, 1874 (id.).—East Greenland.

CURTIS, in Ross's Voyage to Arctic Regions, 79 (? *Tachina hirta*).

COQUILLETT, Revis. Tachin., 140.—Wyo., Col., Ida.

Hudsonian Zone, N. M.—Cockerell.

cora BIGOT, Annales, 1888, 81 (*Echinomyia*).—Mex.

BRAUER, Sitzungsbericht d. K. Akad., CVII, 5, gen. ref.

iterans WALKER, see *Archytas*.

macrocera BIGOT, Bull. Soc. Ent. France, 1887, cxl; Annales, 1888, 81 (both *Echinomyia*).—Mex.

GIGLIO-TOS, Ditt. del Mess., III, 10 (*Echinomyia*).—Oaxaca, Mex.

BRAUER, Sitzungsbericht d. K. Akad., CVII, 6, gen. ref.

robusta WIEDEMANN, Auss. Zw., II, 290 (*Tachina*).—S. A.

MACQUART, Dipt. Exot., Suppl. 1, 144, pl. XII, f. 3 (*Echinomyia analis*).—Colombia.

WALKER, List, IV, 726 (*Tachina anaxias*).—Nova Scotia.

RONDANI, Archivio Zool., III, 15 (*Echinomyia filipalpis*).—S. A.

THOMSON, Eugen. Resa, 517 (*Echinomyia filipalpis*).—Cal.

VAN DER WULP, Tijdschr. v. Ent., X, 145, pl. IV, f. 13-16 (*Echinomyia hæmorrhœa*).—Wis.; XXVI, sep. 17, oc. in Argentina.

BIGOT, Bull. Soc. Ent. France, 1883, 109 (*Sphyromyia malleola*); Annales, 1888, 256 (*Ech. cinerascens*).—Mex. See also note to *Rhynchodexia rubricauda*.

WILLISTON, Trans. Amer. Ent. Soc., XIII, 301 (*Ech. thomsoni* for *filipalpis* of Thomson, and *hæmorrhœa*).—N. H., Wash., Cal., N. M.

TOWNSEND, Trans. Amer. Ent. Soc., XXII, 71, 72 (*Echinomyia hæmorrhœa* and *thomsoni*), notes.—Ariz.

GIGLIO-TOS, Ditt. del Mess., III, 9, notes (*Ech. robusta*, *filipalpis* and *cinerascens*).—Mexico, several places.

COQUILLETT, Revis. Tachin., 140.—Toronto, Canada; N. H. to Ga., Tex., Ida., and Wyo.

BRAUER, Sitzungsbericht d. K. Akad., CVI, 29; CVII, 5, notes on Bigot's types, etc. Intimates that *robusta* is not a *Peleteria*.

VAN DER WULP, Biologia, Dipt., II, 471 (*Ech. robusta* and *cinerascens*), oc.—Orizaba and Guerrero, Mex.

Porto Rico—Roeder; Montreal—Chagnon; Beulah, N. M.—Skinner; Axton, N. Y.—M. and H.

rubrifrons BIGOT, Annales, 1888, 80 (*Echinomyia*).—Mex.

BRAUER, Sitzungsbericht d. K. Akad., cvii, 6, gen. ref., from type.

(*tessellata*) FABRICIUS, Ent. Syst., iv, 324 (*Musca*); Syst. Antl., 309 (*Tachina*).—Europe.

MEIGEN, Syst. Besch., iv, 242 (*Tachina*).

DESVOIDY, Myodaires, 45 (*Echinomyia nigricornis*).

WALKER, List, iv, 728 (*Tachina punctifera*).—Massachusetts.

VAN DER WULP, Biologia, Dipt., ii, 32, pl. ii, f. 11 (*Echinomyia flaviventris*).—Durango, Mex.

TOWNSEND, Annals and Mag. Nat. Hist., xix, 148 (*Echinomyia neglecta*).—Rio Tularosa, N. M.

COQUILLETT, Revis. Tachin., 141.—Georgetown, Canada; N. H., Mass., Mich., Ill., Col., Wash., S. D.

Montreal—Chagnon; Hudsonian Zone, N. M.—Cockerell; Beulah, N. M.—Skinner; Axton, N. Y.—M. and H.

thomsoni WILLISTON, see *robusta*.

ARCHYTAS.

JENNICKE, Neue Exot. Dipt., 392, 1867.

VAN DER WULP, Biologia, Dipt., ii, 38, 1888 (*Nemochata*); p. 478, 1903 (id.), table of Mex. sp.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., iv, 133, 1889 (*Tachinodes*); vi, 146, 1893, syn.; vii, 612, 1894 (*Parafabricia*).

COQUILLETT, Revis. Tachin., 141, 1897.

? *aberrans* GIGLIO-TOS, Boll. R. Univ. Torino, viii, No. 158; Ditt. del Mess., iii, 18, f. 9 (both ? *Nemochata*).—Metztillan, Mex.

✓ *analis* FABRICIUS, Syst. Antl., 311 (*Tachina*).—S. A.

MACQUART, Dipt. Exot., ii, 3, 42, pl. iii, f. 7 (*Jurinia amethystina*); Suppl. i, 147 (id.).—Ga.; Colombia and Venezuela.

WALKER, List, iv, 718 (*Tachina apicifera*); Dipt. Saund., 270 (*Tach. californica*).—N. A.; Cal.

WILLISTON, Trans. Amer. Ent. Soc., xiii, 300 (*Jurinia apicifera*); Trans. Ent. Soc. Lond., 1896, 353, pl. xi, f. 89 (id.).—U. S., common, and San Domingo; St. Vincent, W. I.

TOWNSEND, Jour. N. Y. Ent. Soc., v, 177 (*Jurinia apicifera*); Annals and Mag. Nat. Hist., xix, 145 (id.).—Brownsville, Texas; Rio Bonito, N. M.

BAKER, Ent. News, vi, 174, reared from *Clisiocampa fragilis* at Fort Collins, Col.

COQUILLETT, Revis. Tachin., 142.—Toronto, Canada; U. S. generally; Jamaica.

Montreal—Chagnon; Jamaica—Johnson; Beulah, N. M.—Skinner.

✓ *aterrima* DESVOIDY, Myodaires, 35 and 37 (*Jurinia aterrima* and *leucostoma*).—U. S.

MACQUART, Dipt. Exot., ii, 3, 196, pl. iii, f. 6 (*Jur. smaragdina*).—Brazil?

WALKER, Dipt. Saund., 273 (*Tachina atra*).—Ga.

COQUILLETT, Revis. Tachin., 143.—N. H., Mass., N. Y., D. C., Va., N. C., Fla., Ga., Miss., Mo., Ia., Pa., Ind.; reared from *Acronycta occidentalis* G. and R., *Ac. ovata* GR., *Cerura* sp., and *Lagoa crispata*.

St. Augustine, Fla.—Johnson.

basifulva WALKER, List, iv, 725 (*Echinomyia*).—Jamaica.

COQUILLETT, Proc. U. S. N. M., xxii, 253, oc. in Porto Rico.

bicolor WIEDEMANN, Auss. Zw., ii, 282 (*Tachina*).—Brazil.

- SCHINER, Novara, 331 (*Fabricia demon* Wd.).—Brazil. [Brauer.]
 BIGOT, Bull. Soc. Ent. France, 1887, cxli; Annales, 1888, 85 (both *Fabricia infumata*).—Mex.
 BRAUER, Sitzungsbericht d. K. Akad., cvii, 495, 1898, syn. of Bigot.
Note.—For Coquillett's *infumata*, Revis. Tachin., 144, see *palpalis*.
- chrysiceps** DESVOIDY, Myodaires, 37 (*Jurinia*).—Brazil.
 JENNICKE, Neue Exot. Dipt., 82 (*Jurinia flavifrons*).—Mex.
 GIGLIO-TOS, Ditt. del Mess., III, 17 (*Nemochata*).—Mex.; syn.
- crucia** GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 158, 1893 (*Nemochata*); Ditt. del Mess., III, 16 (id.).—Tuxpango and Huastec, Mex.
- dissimilis** VAN DER WULP, Biologia, Dipt., II, 39, pl. v, f. 18 (*Nemochata*); p. 478, oc. (id.).—Costa Rica; Atoyac, Teapa and N. Yucatan, Mex.
 BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 383, would refer to *Tachinodes*.
 GIGLIO-TOS, Ditt. del Mess., III, 14, oc. in Mex. (*Nemochata*).
- dubia** GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 158, 1893; Ditt. del Mess., III, 15, f. 8 (both *Nemochata*).—Mex.
- frontalis** VAN DER WULP, Tijdschr. v. Ent., xxxv, 194 (*Nemochata*); Biologia, Dipt., II, 478 (id.).—Atoyac, Mex.
- hystrix** FABRICIUS, Syst. Ent., 777 (*Musca*); Ent. Syst., iv, 325 (id.); Syst. Antl., 310 (*Tachina*).—America.
 OLIVIER, Encycl. Méthodique, VIII, 22 (*Musca*).
 WIEDEMANN, Auss. Zw., II, 283 (*Tachina*).—N. A.
 DESVOIDY, Myodaires, 35, 36 (*Jurinia metallica* and *boscii*).—U. S.
 DRURY, Illustrations, I, pl. xlv, f. 7 (*Musca pilosa*). [Wied.]
 MACQUART, Hist. Nat. Dipt., II, 79 (*Echinomyia hystrix* and *georgiæ*); Dipt. Exot., Suppl. iv, 2, 144 (*Jurinia virginienensis*).—N. A.; Ga.; Va.
 JENNICKE, Neue Exot. Dipt., 83 (*Jurinia fuscipennis*).—N. A.
 WILLISTON, Trans. Amer. Ent. Soc., XIII, 299 and 300 (the latter *hystrioides*).—U. S. generally.
 COQUILLETT, Revis. Tachin., 142.—U. S. generally, common.
- incerta** GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 158, 1893; Ditt. del Mess., III, 14, f. 3 (both *Nemochata*).—Oaxaca, Mex.
- infuscata** VAN DER WULP, Tijdschr. v. Ent., xxxv, 194 (*Nemochata*); Biologia, Dipt., II, 479 (id.).—Teapa, Mex.
- ? innovata** WALKER, Trans. Ent. Soc., n. ser., v, 296 (*Jurinia*).—Mex. Query by J. M. A.
- jurinoides** GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 158, 1893; Ditt. del Mess., III, 18, f. 5 (both *Nemochata*).—Oaxaca, Mex.
- lateralis** MACQUART, Dipt. Exot., II, 3, 42, pl. III, f. 10 (*Echinomyia*).—Mex.
 WALKER, List, iv, 720, 727 (*Tachina candens* and *iterans*).—Both Nova Scotia.
 JENNICKE, Neue Exot. Dipt., 82 (*Jurinia apicalis*).—Mex.
 BIGOT, Annales, 1878, 78 (*Jurinia gonoides*); Bull. Soc. Ent. France, 1888, Jul. II, syn.—Mex.
 WILLISTON, Trans. Amer. Ent. Soc., XIII, 300 (*lateralis* and *iterans*), oc. and notes.—New England to New Mex.
 TOWNSEND, Trans. Amer. Ent. Soc., XXII, 71 (*Echinomyia iterans*); Psyche, 1897, 150, oc. in N. M.; Annals and Mag. Nat. Hist., XIX, 148 (*Echinomyia victoria*); XXII, 72 (id.).—Rio Tularosa, N. M. (*victoria*).
 COQUILLETT, Revis. Tachin., 1897, 143.—Mass., N. C., Ga., Fla., Col.
 Beulah, N. M.—Skinner.
- leschenaldi** DESVOIDY, Myodaires, 42 (*Peleteria*); Dipt. Env. Paris, I, 658.—N.

A.; in the later work the same specimens are referred to South America.

BRAUER, Sitzungsbericht d. K. Akad., cvii, 5, mentions a Mexican specimen in Bigot's collection; gen. ref.

nitida VAN DER WULP, see *Echinomyia algens*.

pernox GIGLIO-TOS, Boll. R. Univ. Torino, viii, No. 158, 1893; Ditt. del Mess., iii, 16 (both *Nemochæta*).—Orizaba, Mex.

piliventris VAN DER WULP, Tijdschr. v. Ent., xxvi, 22 (*Echinomyia*); Biologia, Dipt., ii, 474 (id.), notes and oc.—Argentina; Guerrero and Vera Cruz, Mex.

COQUILLETT, Revis. Tachin., 142.—Waco, Texas, and Jamaica.

seminigra WIEDEMANN, Auss. Zw., ii, 296 (*Tachina*).—Brazil.

MACQUART, Dipt. Exot., ii, 3, 39, pl. iii, f. 8 (*Jurinia*).—Brazil and Mex.

WALKER, Dipt. Saund., 270 (*Tachina divisa*).—Para, S. A.

SCHINER, Novara, 331, oc. in Chili and Colombia (*Echinomyia*).

ROEDER, Stett. Ent. Zeit., 1885, 345, notes and oc. in Porto Rico (*Jur. analis* McQ.).

GIGLIO-TOS, Ditt. del Mess., iii, 14, bibliog., etc.—Orizaba and Oaxaca, Mex.

ECHINOMYIA.

DUMÉRIL, Expos. d'une Méthod p. Class. Ins., 1801; Consid. génér. Classe Ins., 231, 1823.

DESVOIDY, Myodaires, 42, 1830 (*Fabricia*).

KOWARZ, Wien. Ent. Zeit., iv, 51, 1885 (*Mikia*).

VAN DER WULP, Biologia, Dipt., ii, 31, pt. desc. and table of Mexican species, 1888.

WACHTL, Wien. Ent. Zeit., xiii, 140, 1894 (*Pareudora* and *Nowickia*).

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., vii, 614, 1894 (*Pararchytas*).

COQUILLETT, Revis. Tachin., 143, 1897.

ænea ZETTERSTEDT, see *Peleteria*.

† **algens** WIEDEMANN, Auss. Zw., ii, 285 (*Tachina*).—N. A.

DESVOIDY, Myodaires, 44 (*picca* and *lapilæi*).—Nova Scotia; America.

WALKER, List, iv, 732 (*Tachina degenera*).—Martin Falls, Canada.

WILLISTON, Trans. Amer. Ent. Soc., xiii, 298, notes (*Jurinia*).—New England to Ore.

VAN DER WULP, Notes from the Leyden Museum, iv, 82 (*Jurinia nitida*); Tijdschr. v. Ent., xxvi, sep. 18 (id.); 20 (*Jurinia picca* and *nitida*).—Arizona; Quebec.

TOWNSEND, Trans. Amer. Ent. Soc., xxii, 70, bred from *Hadena lignicolor* by Gillette in Col. (*Jurinia*).

COQUILLETT, Revis. Tachin., 144.—Toronto, Canada; N. H., Vt., Mass., N. Y., Col., Mont., Br. Col., Wash., Ore., Cal., S. D. (Also in Alaska, Proc. Wash. Acad. Sci., ii, 439.)

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 409, place *nitida* V. d. W., under *Tachinodes*, which they afterward unite with *Archytas*.

BRAUER, Sitzungsbericht d. K. Akad., cvii, 5, confirms synonymy of *picca* R. D., from Bigot's specimen, and alleges that it is the prior name, with reasons.

TOWNSEND, Annals and Mag. Nat. Hist., xix, 145, oc. at Rio Tularosa, N. M. (*Jurinia*).

VAN DER WULP, Biologia, Dipt., ii, 474, 479 (*picca* and *nitida*).—Guerrero, Vera Cruz and Morelos, Mex.

Beulah, N. M.—Skinner; Axton, N. Y.—M. and H.

- analis** FABRICIUS, Syst. Antl., 311 (*Tachina*).—S. A.
 WIEDEMANN, Auss. Zw., II, 288 (id.).—Brazil.
 SCHINER, Novara, 331, brief note.—S. A.
 VAN DER WULP, Biologia, Dipt., II, 33, pl. II, f. 12; p. 473, oc.—Mexico,
 several places; Nicaragua, Costa Rica.
- anaxias** WALKER, see *Peleteria robusta*.
- basifulva** WALKER, see *Archytas*.
- californiæ** WALKER, see *Archytas analis*.
- cinerascens** BIGOT, see *Peleteria robusta*.
- compascua** VAN DER WULP, Tijdschr. v. Ent., XXXV, 192; Biologia, Dipt., II,
 473.—Guerrero, Mex.
- cora** BIGOT, Annales, see *Peleteria*.
- dakotensis** TOWNSEND, Trans. Amer. Ent. Soc., XIX, 94.—Brookings, S. D.
 COQUILLETT, Revis. Tachin., 144.—N. H., N. C., Col., Cal.
 N. J.—Smith Cat.
- decisa** WALKER, List, IV, 715 (*Tachina*).—Martin Falls and Nova Scotia, Canada.
 THOMSON, Eugenie Resa, 516 (*Jurinia cchinata*).—Cal.
 WILLISTON, Trans. Amer. Ent. Soc., XIII, 301, notes and oc. in N. H.,
 Conn., Va., Col., N. M. (*Jurinia*).
 COQUILLETT, Revis. Tachin., 143.—Toronto, Canada; N. H., N. J., Col.,
 S. Cal., S. D.
 N. J.—Smith Cat; Beulah, N. M.—Skinner.
- diaphana** FABRICIUS, Syst. Antl., 308 (*Tachina*).—S. A.
 WIEDEMANN, Auss. Zweifl., II, 281 (id.).—S. A.
 VAN DER WULP, Tijdsch. v. Ent., XXVI, 21 (*vittata*); Biologia, Dipt., II,
 473, syn. and oc.—Argentina; Guerrero, Mex.
- dispar** VAN DER WULP, Biologia, Dipt., II, 34, pl. II, f. 14.—N. Sonora, Mex.
- filipalpis** THOMSON, see *Peleteria robusta*.
- filipalpis** RONDANI, see *Peleteria robusta*.
- flaviventris** VAN DER WULP, see *Peleteria tessellata*.
- florum** WALKER, List, IV, 722 (*Tachina*).—Martin Falls and Nova Scotia, Can-
 ada.
 COQUILLETT, Revis. Tachin., 144.—Canada, N. H., Mass., N. J., N. C.,
 S. D.
 White Mts., N. H.—Slosson; Axton, N. Y.—M. and H.; Province of
 Quebec—Fyles.
- generosa** VAN DER WULP, Tijdschr. v. Ent., XXXV, 192; Biologia, Dipt., II, 472.—
 Guerrero, Mex.
- hæmorrhœa** VAN DER WULP, see *Peleteria robusta*.
- hystricosa** WILLISTON, Trans. Amer. Ent. Soc., XIII, 297 (*Dejeania*).—Wash.,
 N. M., Ariz.
 COQUILLETT, Revis. Tachin., 144.—Col., Wash. Psyche, 1901, 150, "occurs
 from N. M. and Ariz. northwardly to Ida. and Wash."
 TOWNSEND, Annals and Mag. Nat. Hist., XIX, 145, oc. Rio Tularosa, N.
 M. (*Dejeania*).
 Beulah, N. M.—Skinner.
- immaculata** MACQUART, Dipt. Exot., Suppl. IV, 2, 169, pl. xv, f. 8.—Brazil.
 VAN DER WULP, Notes from the Leyden Museum, IV, 83; Tijdschr. v. Ent.,
 XXV, sep. 19, oc. in Ariz.
- infumata** BIGOT, see *Archytas bicolor*.
- iterans** WALKER, see *Archytas lateralis*.
- leschenaldi** DESVOIDY, see *Archytas*.
- macrocera** BIGOT, see *Peleteria*.

- neglecta** TOWNSEND, see *Peleteria tessellata*.
nigrocallypterata VAN DER WULP, *Biologia*, Dipt., II, 33 and 473.—Mexico, several places.
notata BIGOT, see *Nemoræa*.
palpalis COQUILLETT, *Proc. U. S. N. M.*, XXV, 120; *Revis. Tachin.*, 144 (*infumata* BIGOT).—Los Angeles Co., Cal.
piliventris VAN DER WULP, see *Archytas*.
punctifera WALKER, see *Peleteria tessellata*.
robusta WIEDEMANN, see *Peleteria*.
rubrifrons BIGOT, see *Peleteria*.
thomsoni WILLISTON, *Trans. Amer. Ent. Soc.*, XIII, 301, see *Peleteria robusta*.
victoria TOWNSEND, see *Archytas lateralis*.

EPALPUS.

- RONDANI, *Nuovi Annali Sc. Nat. Bologna*, II, 170, 1850.
 SCHINER, *Novara*, 333, 1868 (*Saundersia*).
 VAN DER WULP, *Biologia*, Dipt., II, 18, 1888, table of Mexican species (id.); p. 462 (id.), second table of species, 1903.
 BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, IV, 132, 1889; VI, 146, 1893.
 COQUILLETT, *Revis. Tachin.*, 145, 1897, note.
albomaculatus JENNICKE, *Neue Exot. Dipt.*, 80 (*Micropalpus*).—Mex.
 VAN DER WULP, *Biologia*, Dipt., II, 21, pl. I, f. 17 (*Saundersia*); p. 464, oc. (id.).—Mexico, several places; Guatemala.
 GIGLIO-TOS, *Ditt. del Mess.*, III, 24, notes (id.).—Oaxaca, Mex.
aureus GIGLIO-TOS, *Boll. R. Univ. Torino*, VIII, No. 158, 1893; *Ditt. del Mess.*, III, f. 4 (both *Saundersia*).—Angang, Mex.
bicolor WILLISTON, *Trans. Amer. Ent. Soc.*, XIII, 304 (*Saundersia*).—N. M., Ariz., Cal., Wash.
 TOWNSEND, *Trans. Amer. Ent. Soc.*, XXII, 69 (id.).—Ariz.
 GIGLIO-TOS, *Ditt. del Mess.*, III, 23, note (id.).—Mex.
 Beulah, N. M.—Skinner.
bipartitus VAN DER WULP, *Biologia*, Dipt., II, 25, pl. II, f. 3; p. 465, oc. (*Saundersia*).—Mexico, several places; Costa Rica.
 BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, V, 409, oc. in Col. (id.).
 GIGLIO-TOS, *Ditt. del Mess.*, III, 23, note (id.).
canus VAN DER WULP, *Biologia*, Dipt., II, 25, pl. II, f. 2 (*Saundersia*).—Costa Rica.
consanguineus VAN DER WULP, *Tijdschr. v. Ent.*, XXXV, 191 (*Saundersia*); *Biologia*, Dipt., II, 465 (id.).—Guerrero, Mex., and Guatemala.
femoratus VAN DER WULP, *Tijdschr. v. Ent.*, XXXV, 191 (*Saundersia*); *Biologia*, Dipt., II, 464 (id.).—Guerrero, Mex.
flavitarsis MACQUART, *Dipt. Exot.*, II, 3, 47, pl. V, f. 3; *Suppl. I*, 152, pl. XIII, f. 13; *Suppl. III*, 45 (all *Micropalpus*).—Mex.
 BRAUER, *Sitzungsbericht d. K. Akad.*, CVII, 10, examined type and refers to *Epalpus*; the species referred to by Schiner, *Novara*, 334, from S. A., is not the same.
 WILLISTON, *Trans. Amer. Ent. Soc.*, XIII, 303 (*Saundersia*).—U. S.; oc. only.
jennickei GIGLIO-TOS, *Ditt. del Mess.*, III, 22, change of name.
 JENNICKE, *Neue Exot. Dipt.*, 79 (*Micropalpus rufipes*; *rufipes* is preoc. in *Epalpus*).—Panama.

- BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., vi, 209, gen. ref., to *Saundersia*.
- lætus* VAN DER WULP, Tijdschr. v. Ent., xxxv, 191 (*Saundersia*); Biologia, Dipt., ii, 465 (id.).—Guerrero, Mex.
- laticornis* VAN DER WULP, Biologia, Dipt., ii, 20, pl. i, f. 15 (*Saundersia*).—Costa Rica.
- macula* MACQUART, Dipt. Exot., ii, 3, 46, pl. v, f. 2 (*Micropalpus*).—S. A. SCHINER, Novara, 334, note (*Saundersia*).
VAN DER WULP, Biologia, Dipt., ii, 21, pl. i, f. 16 (id.).—Costa Rica.
GIGLIO-TOS, Ditt. del Mess., iii, 24, note.—Mex., S. A.
- maculatus* WILLISTON, Trans. Amer. Ent. Soc., xiii, 304 (*Saundersia*).—N. M.
- montivagus* VAN DER WULP, Tijdschr. v. Ent., xxxv, 190 (*Saundersia*); Biologia, Dipt., ii, 463 (id.).—Guerrero, Mex.
- nigripilosus* VAN DER WULP, Biologia, Dipt., ii, 23 (*Saundersia*); p. 464, oc. (id.).—Cordova and Guerrero, Mex.; Costa Rica.
BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., vi, 209, probably the same as *jennickei*.
Note.—For Coquillett's *nigripilosus*, Revis. Tachin., 145, see *Parepalpus flavidus*.
- nigriventris* MACQUART, Dipt. Exot., ii, 3, 44, pl. iv, f. 3 (*Hystricia*); Suppl. i, 150 (*Micropalpus*).—Bogota.
SCHINER, Novara, 334, refers to *Saundersia*.—S. A.
RONDANI, Arch. Zool., iii, 1865, 18 (*Cryptopalpus hystrix*).
ROEDER, Stett. Ent. Zeit., xlvii, sep. 10, oc. in Colombia (*Saundersia*).
VAN DER WULP, Biologia, Dipt., ii, 24 (*Saundersia rufitibia*).—Orizaba, Mex.
GIGLIO-TOS, Ditt. del Mess., iii, 25, bibliog., etc. (*Saundersia*).—Mex.
- nitidus* MACQUART, Dipt. Exot., Suppl. iv, 2, 174, pl. xv, f. 14 (*Micropalpus*).—S. A.
BRAUER, Sitzungsbericht d. K. Akad., cvi, 41, notes on type, which he states is from Mexico.
- ochripes* VAN DER WULP, Biologia, Dipt., ii, 19, pl. i, f. 14 (*Saundersia*).—Costa Rica.
- ornatus* MACQUART, Dipt. Exot., ii, 3, 47, pl. iv, f. 6 (*Micropalpus*).—Mex., Colombia.
SCHINER, Novara, 333 (type of *Saundersia*).—Colombia.
- picea* GIGLIO-TOS, Boll. R. Univ. Torino, viii, No. 158, 1893; Ditt. del Mess., iii, 25, f. 10 (both *Saundersia*).—Mex.
- rufipes* MACQUART, Dipt. Exot., Suppl. iv, 2, 172, pl. xv, f. 11 (*Hystricia*).—Brazil.
VAN DER WULP, Biologia, Dipt., ii, 27, note on genus.
GIGLIO-TOS, Ditt. del Mess., iii, 24 (*Saundersia*).—Mex.
- rufipes* JÆNNICKE, see *jennickei*.
- rufitibia* VAN DER WULP, Biologia, Dipt., ii, 24 and 464 (*Saundersia*).—Orizaba and Guerrero, Mex.
- rufopilosus* VAN DER WULP, Biologia, Dipt., ii, 23 and 464 (*Saundersia*).—Costa Rica; Guatemala; Pueblo and Guerrero, Mex.
TOWNSEND, Annals and Mag. Nat. Hist., xix, 32, pt. desc. (*Saundersia*).
- signiferus* WALKER, List, iv, 708 (*Tachina*).—Nova Scotia.
WILLISTON, Trans. Amer. Ent. Soc., xiii, 303, refers to *Saundersia*.
VAN DER WULP, Biologia, Dipt., ii, 22, note on position.
COQUILLETT, Revis. Tachin., 145.—N. H., Mass., Md., N. C., Col., Wash., Cal.; Vancouver, Br. Col.
N. J.—Smith Cat.; Montreal—Chagnon; Axton, N. Y.—M. and H.

- testaceus** VAN DER WULP, *Biologia*, Dipt., II, 24, pl. II, f. 1 (*Saundersia*); p. 465 (id.), oc. and notes.—Costa Rica; Guerrero, Mex.
- truncaticornis** VAN DER WULP, *Biologia*, Dipt., II, 26, pl. II, f. 4 (*Saundersia*).—Panama.
- unicolor** VAN DER WULP, *Biologia*, Dipt., II, 23 and 464 (*Saundersia*).—Orizaba and Xucumanatlan, Mex.

PAREPALPUS.

- COQUILLETT, *Proc. U. S. N. M.*, XXV, 120, 1902.
- flavidus** COQUILLETT, loc. cit.; *Revis. Tachin.*, 145 (*Epalpus nigripilosa* V. d. W.).—Col.
- Beulah, N. M.—Skinner.

CRYPTOPALPUS.

- RONDANI, *Nuovi Annali Sci. Nat. Bologna*, II, 171, 1850.
- BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, IV, 132, 1889; VI, 146, 1893.
- ? **flaviceps** BIGOT, *Bull. Soc. Ent. France*, 1887, 141; *Annales*, 1888, 93.—Rocky Mts.
- BRAUER, *Sitzungsbericht d. K. Akad.*, CVI, 42, notes on type; does not belong to this genus;—perhaps a new genus; near *Rhinometopia*.
- melanopygatus** BIGOT, *Bull. Soc. Ent. France*, 1887, 141.—Wash.

BOMBYLIOMYIA.

- BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, IV, 131, 1889; VI, 147, 1893.
- ✓**abrupta** WIEDEMANN, *Auss. Zw.*, II, 293 (*Tachina*).—N. A.
- HARRIS, *Ins. Inj. to Vegetation*, 3d ed., 612 (*Tachina vivida*).—Mass.
- MACQUART, *Dipt. Exot.*, II, 3, 44, pl. IV, f. 4 (*Hystricea testacea*).—Mex. and N. A.
- WALKER, *List*, IV, 707 (*Tachina finitima*).—Nova Scotia and U. S.
- GLOVER, *Rept. U. S. Entomologist*, 1866, 44, reared *T. vivida* from *Eacles imperialis*.
- WILLISTON, *Trans. Amer. Ent. Soc.*, XIII, 298, oc. in New England and Wash. (*Hystricia*).
- BIGOT, *Bull. Soc. Ent. France*, 1888, CVI; *Annales*, 1888, 79 (both *Hystricia fulvida*).—N. A.
- VAN DER WULP, *Tijdschr. v. Ent.*, XXVI, sep. 17, oc. at Quebec (*H. vivida*); *Biologia*, Dipt., II, 461 (*Hystricia*), oc. in Rinconada, Mex.
- COQUILLETT, *Revis. Tachin.*, 145.—Toronto, Canada; N. H., Mass., N. J., Pa., N. Y., Ohio, Col., Wash., Br. Col.
- Montreal—Chagnon.

HYSTRICIA.

- MACQUART, *Dipt. Exot.*, II, 3, 43, 1843.
- VAN DER WULP, *Biologia*, Dipt., II, 11, 1888, table of Mexican species.
- BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, VI, 147, 1893.
- abrupta** WIEDEMANN, see *Bombyliomyia*.
- albiceps** VAN DER WULP, *Biologia*, Dipt., II, 12, pl. I, f. 6.—Costa Rica.
- albosignata** VAN DER WULP, *Tijdschr. v. Ent.*, XXXV, 190; *Biologia*, Dipt., II, 461.—Guerrero, Mex.
- aldrichi** TOWNSEND, see *Panzeria radicum*.
- ambigua** MACQUART, see *Jurinella*.



amœna MACQUART, Dipt. Exot., II, 3, 44.—Mex.

VAN DER WULP, Biologia, Dipt., II, 16, pl. I, f. 11; p. 461, note.—Costa Rica.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 131, f. 230; VI, 147.—Cent. Amer.

GIGLIO-TOS, Ditt. del Mess., III, 27, note.—Coscom, Mex.

cyaneiventris VAN DER WULP, Compt. Rend., Soc. Ent. Belg., XXXVIII, p. ccxci; Biologia, Dipt., II, 13, transl. orig. desc.—Guanajuato, Mex.

dorsalis VAN DER WULP, Biologia, Dipt., II, 17, pl. I, f. 13; p. 461, oc.—Guatemala, Costa Rica, Panama; Guerrero, Mex.

fulvida BIGOT, see *Bombyliomyia abrupta*.

infuscata VAN DER WULP, Biologia, Dipt., II, 12 and 460, note.—Vera Cruz, Mex.

micans VAN DER WULP, Biologia, Dipt., II, 16, pl. I, f. 12; p. 461, oc.—Costa Rica; Guerrero and Tuxpango, Mex.

GIGLIO-TOS, Ditt. del Mess., III, 27.—Oaxaca, Mex.

pollinosa VAN DER WULP, Biologia, Dipt., II, 14, pl. I, f. 8; p. 461, oc.—Guatemala, Costa Rica; Mexico, several places.

GIGLIO-TOS, Ditt. del Mess., III, 26, note.—Metztillan, Mex.

pyrrhaspis WIEDEMANN, see *Tropidopsis*.

soror WILLISTON, see *Jurinella*.

testacea MACQUART, see *Bombyliomyia abrupta*.

testaceiventris VAN DER WULP, Tijdschr. v. Ent., XXXV, 190; Biologia, Dipt., II, 460.—Guerrero, Mex.

velutina VAN DER WULP, Biologia, Dipt., II, 15, pl. I, f. 10.—Costa Rica.

DEJEANIA.

DESVOIDY, Myodaires, 33, 1830.

VAN DER WULP, Biologia, Dipt., II, 7, 1888, table of Mexican species.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 146, 1893.

analís MACQUART, Dipt. Exot., II, 3, 34, pl. III, f. 3 (*Echinomyia*).—Mex.

BIGOT, in Sagra's Cuba, 809 (id.).—Cuba.

armata WIEDEMANN, AUSS. ZW., II, 287 (*Tachina*).—Cuba.

MACQUART, Dipt. Exot., Suppl. IV, 2, 168, pl. XV, f. 7.—Brazil.

SCHINER, Novara, 337, oc. in Brazil.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., V, 409, gen. ref. and oc. in Cuba and Brazil.

atrata VAN DER WULP, Biologia, Dipt., II, 8, pl. I, f. 2.—Costa Rica.

aurea GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 158, 1893; Ditt. del Mess., III, 20.—Solco, Mex.

corpulenta WIEDEMANN, AUSS. ZW., II, 280 (*Tachina*).—Mex.

MACQUART, Dipt. Exot., II, 3, 35, pl. III, f. 1 (*ruñipalpis*).—Mex.

VAN DER WULP, Tijdschr. v. Ent., XXV, 17, oc. in Bogota; XXIX, p. XXXI; Biologia, Dipt., II, 9, pl. I, f. 4.—Bogota; same; Costa Rica and Panama.

GIGLIO-TOS, Ditt. del Mess., III, 20, notes.—Oaxaca and Solco, Mex.

TOWNSEND, Psyche, 1897, 40, oc. in N. M. and notes; Annals and Mag. Nat. Hist., XIX, 145, more of same.

VAN DER WULP, Biologia, Dipt., II, 459, notes and oc.—Mexico, several places.

hystricosa WILLISTON, see *Echinomyia*.

montana VAN DER WULP, Tijdschr. v. Ent., XXXV, 190; Biologia, Dipt., II, 459.—Guerrero, Mex.

pallipes MACQUART, Dipt. Exot., II, 34, pl. II, f. 9.—Colombia.

SCHINER, Novara, 337, oc. and note.—S. A.

VAN DER WULP, *Biologia*, Dipt., II, 8, pl. 1, f. 1.—Costa Rica and Panama.
plumitarsis VAN DER WULP, *Tijdschr. v. Ent.*, XXIX, p. xxxi, change of name.—
 Mex.

MACQUART, *Hist. Nat. Dipt.*, II, 77 (*Echinomyia corpulenta* Wd.); Dipt.
 Exot., II, 3, 35 (*Dejeania corpulenta* Wd.); Suppl. I, 143, pl. XII, f. 2
 (id.).—S. A.

SCHINER, *Novara*, 337, note and oc. (id.).—S. A.

VAN DER WULP, *Biologia*, Dipt., II, 10, pl. 1, f. 5.—Guatemala and Costa
 Rica.

rutilioides JÆNNICKE, see *Paradejeania*.

vexatrix OSTEN SACKEN, *West. Dipt.*, 343; *Cat.*, 256.—Georgetown, Col.

COQUILLETT, *Revis. Tachin.*, 146, footnote.—Col.

Beulah, N. M.—Skinner.

PARADEJEANIA.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, VI, 147 and 184, 1893.

rutilioides JÆNNICKE, *Neue Exot. Dipt.*, 86 (*Dejeania*).—Mex.

OSTEN SACKEN, *West. Dipt.*, 354, oc.; *Cat.*, 256, note (both *Dejeania*).

WILLISTON, *Trans. Amer. Ent. Soc.*, XIII, 297, notes (id.).—N. M., Col.,
 Cal.

VAN DER WULP, *Tijdschr. v. Ent.*, XXV, 17; *Biologia*, Dipt., II, 9, pl. 1,
 f. 3, and p. 459 (id.).—Costa Rica; Guerrero, Mex.

COQUILLETT, *Revis. Tachin.*, 146.—N. M., Col., Cal., Mex.

TOWNSEND, *Annals and Mag. Nat. Hist.*, XIX, 144, oc. at Rio Tularosa,
 N. M., etc.

JURINIA.

DESVOIDY, *Myodaires*, 34, 1830.

VAN DER WULP, *Biologia*, Dipt., II, 27, table of Mexican species, 1888; p.
 466, 1903, table of his own species.

adusta VAN DER WULP, *Biologia*, Dipt., II, 28, pl. II, f. 7.—Durango, Mex.; Guate-
 mala.

COQUILLETT, *Revis. Tachin.*, 147 (*metallica* DESV.); *Proc. U. S. N. M.*, XXV,
 120, correction.—W. Va., Ky., Ga., Fla., Tex., Col.; bred from *Ecan-
 theria scribonia* STOLL.

VAN DER WULP, *Biologia*, Dipt., II, 467, oc. in Mexico, several places.

N. J.—Smith *Cat. (metallica)*.

algens WIEDEMANN, see *Echinomyia*.

amethystina MACQUART, see *Archyta analis*.

analis MACQUART, see *Nemochata scminigra*.

apicalis JÆNNICKE, see *Archytas lateralis*.

apicifera WALKER, see *Archytas analis*.

assimilis VAN DER WULP, *Tijdschr. v. Ent.*, XXXV, 192; *Biologia*, Dipt., II, 469.—
 Guerrero and Yucatan, Mex.

aterrima DESVOIDY, see *Archytas*.

badiiventris VAN DER WULP, *Biologia*, Dipt., II, 28, pl. II, f. 6.—Costa Rica.

barbata BIGOT, *Annales*, 1888, 78.—Mex.

BRAUER, *Sitzungsbericht d. K. Akad.*, CVII, 8, confirms the generic posi-
 tion.

basalis WALKER, *List*, IV, 713.—Jamaica.

GIGLIO-TOS, *Ditt. del Mess.*, III, 19.—Huastec, Mex.

boscii DESVOIDY, see *Archytas hystrix*.

candens WALKER, see *Archytas lateralis*.

congruens VAN DER WULP, Tijdschr. v. Ent., xxxv, 192; Biologia, Dipt., II, 469.—N. Yucatan.

? *contraria* WALKER, List, IV, 116 (*Tachina*).—Mex. Query by J. M. A.

debitrix WALKER, Trans. Ent. Soc., n. ser., v, 296.—Mex.

decisa WALKER, see *Echinomyia*.

dichroma VAN DER WULP, Biologia, Dipt., II, 27, pl. II, f. 5.—Durango, Mex.; Costa Rica. Also p. 467, oc. in Misantla, Mex.

GIGLIO-TOS, Ditt. del Mess., III, 19, notes.—Cuernavaca, Mex.

echinata THOMSON, see *Echinomyia decisa*.

? *epileuca* WALKER, List, IV, 716 (*Tachina*).—Jamaica. Query by J. M. A.

flavifrons JÆNNICKE, see *Nemocheta chrysiceps*.

fuscipennis JÆNNICKE, see *Archytas hystrix*.

georgica MACQUART, see *Archytas hystrix*.

gonioides BIGOT, see *Archytas lateralis*.

hystricoides WILLISTON, see *Archytas hystrix*.

hystrix FABRICIUS, see *Archytas*.

innovata WALKER, see *Archytas*.

lateralis MACQUART, see *Archytas*.

leucostoma DESVOIDY, see *Archytas aterrima*.

metallica DESVOIDY, see *Archytas hystrix*.

"*myrrhea* SAY" is recorded from Pa. in the Imperial Museum by Brauer and Bergenstamm, Zweifl. d. Kaiserl. Mus., v, 409. It seems to be a manuscript name.

nepticula VAN DER WULP, Tijdschr. v. Ent., xxxv, 191; Biologia, Dipt., II, 468.—Guerrero, Mex.

nitida VAN DER WULP, see *Echinomyia algens*.

nitidula VAN DER WULP, Tijdschr. v. Ent., xxxv, 191; Biologia, Dipt., II, 467.—Guerrero, Mex.

punctata VAN DER WULP, Tijdschr. v. Ent., xxxv, 191; Biologia, Dipt., II, 468.—Guerrero, Mex.

smaragdina MACQUART, see *Archytas aterrima*.

spinigera VAN DER WULP, Tijdschr. v. Ent., xxxv, 192; Biologia, Dipt., II, 467.—Guerrero, Mex.

virginiensis MACQUART, see *Archytas hystrix*.

JURINELLA.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 132, 1889 (*Jurinella* and *Pseudohystricia*); VI, 147, 1893 (id.).

COQUILLETT, Revis. Tachin., 147, notes, 1897.

ambigua MACQUART, Dipt. Exot., Suppl. IV, 2, 145 (*Hystricia*).—Mex.

? WILLISTON, Trans. Amer. Ent. Soc., XIII, 298, notes (id.).—Col., Mex. Query by Van der Wulp.

VAN DER WULP, Biologia, Dipt., II, 13, pl. I, f. 7 (id.).—Orizaba, Mex.; Guatemala, Costa Rica.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 132, f. 236; VI, 147 (both *Pseudohystricia*).—Mex.

TOWNSEND, Trans. Amer. Ent. Soc., XXII, 69, redesc. from Mex. (*Pseudohystricia*).

GIGLIO-TOS, Ditt. del Mess., III, 26 (*Hystricia*), oc. at Solco, Mex.

VAN DER WULP, Biologia, Dipt., II, 461, oc. in Guerrero and Atoyac, Mex. (*Jurinina*).

exilis TOWNSEND, Ent. News, III, 1892, 146 (*Pseudohystricia*).—Jamaica. Jamaica—Johnson.

- soror** WILLISTON, Trans. Amer. Ent. Soc., XIII, 298 (*Hystricia*).—Ariz.
 VAN DER WULP, Biologia, Dipt., II, 15, pl. I, f. 9, pt. desc. (id.).—Guatemala, Costa Rica.
 GIGLIO-TOS, Ditt. del Mess., III, 28 (id.), note.—Mex.
 COQUILLET, Revis. Tachin., 147.—Col.

MICROCHIRA.

- BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 188, 1893.
mexicana BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 188.—Mex.

TROPIDOPSIS.

- BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 132, 1889; VI, 147, 1893.
pyrrhaspis WIEDEMANN, Auss. Zw., II, 307 (*Tachina*).—Brazil.
 WALKER, List, IV, 733 (*Tachina anthemon*).—Brazil.
 SCHINER, Novara, 332 (*Hystricia*), notes.—S. A.
 VAN DER WULP, Biologia, Dipt., II, 18, pt. desc. (*Hystricia*).—Cordova, Mex.; Guatemala.
 GIGLIO-TOS, Ditt. del Mess., III, 28, notes.—Tuxpango and Orizaba, Mex.
 VAN DER WULP, Biologia, Dipt., II, 461 (*Hystricia*), oc.—Vera Cruz and Jalapa, Mex.

DEXIIDÆ.

- BIGOT, Revue d'Entomol., 1885, 266, table of all genera.
 VAN DER WULP, Biologia, Dipt., II, 211, table of Mexican genera, 1891.
 BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., V, 1891.
 TOWNSEND, Trans. Amer. Ent. Soc., XIX, 1892, 273, table of N. A. genera.
 VAN DER WULP, Tijdschr. v. Ent., XXVIII, 189, 1885, has a table of the long-legged genera, referring especially to those of Tropical America.
Note.—Brauer and Bergenstamm published an extensive work in the same year as Van der Wulp, 1891. I am unable to settle the question of actual priority; but as Van der Wulp allowed Brauer and Bergenstamm to use his types as a matter of courtesy, and they attributed his genera to him, it would seem unwise to disturb this arrangement.

The ideas of the authors named above differ widely as to the limits and validity of genera; frequently they are hopelessly contradictory. The work of Brauer and Bergenstamm is obviously of a preliminary character, undergoing material change with each succeeding instalment, which makes it undesirable to follow it for sequence of genera.

The differences between Tachinidæ and Dexiidæ are evanescent, and the prospect is that the families will ultimately be combined, or new family characters established. In the present work, most of the doubtful genera, if not in fact all of them, will be found in the Tachinidæ.

The following notes may be grouped together, for convenience of reference:

Illigera ælops WALKER is a *Beskia*.

Illigera corythus WALKER is *Xanthomclana atripennis*.

Illigera helymus WALKER is a *Mctacheta*.

Megerlea rufocaudata BIGOT goes in *Sarcophilodes*.

Oplisa albifacies BIGOT is a *Pseudodexia*.

Oplisa nigrifacies BIGOT; according to Brauer, Sitzungsbericht d. K. Akad., CVI, 32, the types include four species, referable to three genera.

Phorostoma appendiculata BIGOT is a *Myiomima*.

Phorostoma melanogaster BIGOT is *Sardiocera valida*.

Ptilodegeeria B. and B.; for the type species, see *Hypostena obumbrata* V. d. W.

Pyrrosia ochracea BIGOT is an *Æstrophasia*.

Sericocera pictipennis MACQ. is *Euantha dives*.

Tromodesia hæmorrhoidalis BIGOT is *Leptoda atrifrons*.

HYSTRISIPHONA.

BIGOT, Revue et Mag. Zool., 1859, 309.

VAN DER WULP, Biologia, Dipt., II, 213, 1891.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 174, 1893 (the reference in IV, 120, 1889, is a mistake; the species there mentioned is referred, VI, 182, to *Echinodexia*, n. g.).

bicolor GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 147, 1893; Ditt. del Mess., III, 54, f. 17.—Mex.

nigra BIGOT, Rev. et Mag. Zool., 1859, 309; Bull. Soc. Ent. France, 1883, xlv.—Mex.

VAN DER WULP, Biologia, Dipt., II, 213, redesc.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 174, 1893.—Cent. Amer.

BRAUER, Sitzungsbericht d. K. Akad., CVII, 13 (*H. melas*, by mistake), note on type.

Oaxaca, Mex.—Giglio-Tos.

pseudohystricia BRAUER and BERGENSTAMM, see *Echinodexia*.

ECHINODEXIA.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 182, 1893.

pseudohystricia BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 120 (*Hystrisiphona*); VI, 182, gen. ref.—Mex.

VAN DER WULP, Biologia, Dipt., II, 219, pl. v, f. 3 (*Hystrichodexia*).—Guerrero, Mex. Solco, Mex.—Giglio-Tos.

PRORHYNCHOPS.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., V, 364, 1891; VI, 174, 1893.

bilimeki BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., V, 364.—Mazatlan, Mex.

PROSENA.

ST. FARGEAU et SERVILLE, Encycl. Méth., X, 500, 1825.

SCHINER, Fauna Austr., I, 557, 1862.

VAN DER WULP, Biologia, Dipt., II, 214, 1891, desc. and table of Mexican species.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 125, 1889; VI, 175, 1893.

BRAUER and BERGENSTAMM, loc. cit., IV, 127; VI, 175 (*Mochlosoma*).

analis GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 147, 1893; Ditt. del Mess., III, 55 (both *Mochlosoma*).—Mex.

curvirostris BIGOT, Annales, 1888, 264.—Mex.

VAN DER WULP, Biologia, Dipt., II, 217.—Guerrero, Vera Cruz and Tabasco in Mex.; Costa Rica.

BRAUER, Sitzungsbericht d. K. Akad., CVIII, 13, note on types.

Orizaba, Mex.—Giglio-Tos; Beulah, N. M.—Skinner.

- lacertosa** VAN DER WULP, *Biologia*, Dipt., II, 215, pl. v, f. 1.—Durango, Mex.
Solco, Mex.—Giglio-Tos.
- maculifera** BIGOT, see *Stomatodexia cothurnata*.
- melæna** VAN DER WULP, *Biologia*, Dipt., II, 217.—Guerrero, Mex.
- mexicana** MACQUART, see *Thelaira*.
- obscura** BIGOT, see *Eudexia*.
- rufipes** COQUILLETT, *Canad. Ent.*, 1902, 202 (*Mochlosoma*).—Sierra Madre, Chihuahua, Mex.
- sericea** GIGLIO-TOS, *Boll. R. Univ. Torino*, VIII, No. 147, 1893; *Ditt. del Mess.*, III, 56 (both *Mochlosoma*).—Mex.
- ? **tessellans** VAN DER WULP, *Biologia*, Dipt., II, 216.—Guerrero and Durango, Mex. Van der Wulp says it may be the same as *mexicana*, which is *Thelaira*; hence I put the query.
- valida** BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, IV, 126, 168, pl. VIII, f. 102 (*Mochlosoma*).—Pa.: Mex.
VAN DER WULP, *Biologia*, Dipt., II, 215, pl. v, f. 2.—Guerrero, Mex.

PROSENOIDES.

- BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, V, 370, 1891; VI, 175, 1893.
- flavipes** COQUILLETT, *Proc. Acad. Nat. Sci. Phil.*, 1895, 314.—Lake Worth and Charlotte Harbor, Fla.

MYIOMIMA.

- BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, IV, 119, 1889; V, 363, 1891; VI, 175, 1893.
- appendiculata** BIGOT, *Annales*, 1888, 269 (*Phorostoma*).—Mex.
- BRAUER, *Sitzungsbericht d. K. Akad.*, CVIII, 12, notes on type, and gen. ref.
- sarcophagina** BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, IV, 119, 167; V, 363; VI, 175.—Cent. Amer.
VAN DER WULP, *Biologia*, Dipt., II, 264, brief note.

HYSTRICHODEXIA.

- ROEDER, *Stett. Ent. Zeit.*, 1886, 266.
- VAN DER WULP, *Biologia*, Dipt., II, 218, 1891, def. and table of Mexican species.
- BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, VI, 182, 1893.
- aurea** GIGLIO-TOS, *Boll. R. Univ. Torino*, VIII, No. 147, 1893; *Ditt. del Mess.*, III, 59.—Mex.
- brevicornis** MACQUART, *Dipt. Exot.*, Suppl. IV, 230 (*Proscna*).—Brazil.
GIGLIO-TOS, *Ditt. del Mess.*, III, 58.—Mex.
- contristans** VAN DER WULP, *Biologia*, Dipt., II, 221.—Guerrero, Mex.
- coracina** VAN DER WULP, *Biologia*, Dipt., II, 221.—Guerrero, Mex.
- echinata** VAN DER WULP, *Biologia*, Dipt., II, 220.—Costa Rica.
- formidabilis** BIGOT, see *Eudexia*.
- mellea** GIGLIO-TOS, *Boll. R. Univ. Torino*, VIII, No. 147, 1893; *Ditt. del Mess.*, III, 58.—Oaxaca, Mex.
- pseudohystrixa** BRAUER and BERGENSTAMM, see *Echinodexia*.
- ROEDER WILLISTON, *Kans. Univ. Quart.*, II, 77.—Ariz.
- ? **spinosa** BIGOT, *Annales*, 1888, 266 (*Rhynchodexia*).—Hayti.
BRAUER, *Sitzungsbericht d. K. Akad.*, CVI, 31, refers here, or to *Eudexia*, from type.

EUDEXIA.

- BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., iv, 120, 1889; vi, 174, 1893.
- formidabilis** BIGOT, Annales, 1888, 264 (*Rhamphiniina*).—Mex.
- BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., iv, 120 (*goliath*); vi, 174, 182 (id.).—Venezuela.
- VAN DER WULP, Biologia, Dipt., ii, 220, pl. v, f. 4 (*Hystrichodexia*).—Paso del Macho, Mex.; Nicaragua. Notes on the type of Bigot.
- BRAUER, Sitzungsbericht d. K. Akad., cvi, 31, syn. and gen. ref., from type.
- GIGLIO-TOS, Ditt. del Mess., iii, 58, oc. in Orizaba, Mex. (*Hystrichodexia*).
- obscura** BIGOT, Annales, 1888, 264 (*Proscna*); 265 (*Rhamphiniina anthracina*).—Mex.
- VAN DER WULP, Biologia, Dipt., ii, 234, desc. and synonymy, from types (*Rhynchodexia*).—Durango, Mex.
- BRAUER, Sitzungsbericht d. K. Akad., cviii, 14, gen. ref., from type of *anthracina*.
- Solco and Patzcuaro, Mex.—Giglio-Tos.

BATHYDEXIA.

- VAN DER WULP, Biologia, Dipt., ii, 222, 1891.
- BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 363, 1891; vi, 173, 1893.
- albolineata** VAN DER WULP, Biologia, Dipt., ii, 223.—Costa Rica.
- appendiculata** BIGOT, Annales, 1888, 269 (*Phorostoma*).—Mex.
- VAN DER WULP, Biologia, Dipt., ii, 222.—Oaxaca, Mex.; Guatemala.
- BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 363.—Cent. Amer.

GYMNODEXIA.

- BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 364, 1891; vi, 173, 1893.
- zonata** COQUILLET, Proc. Acad. Nat. Sci. Phil., 1895, 315.—Jacksonville, Fla.

SCOTIPTERA.

- MACQUART, Dipt. Exot., ii, 3, 83, 1843.
- ? DESVOIDY, Myodaires, 317, 1830 (*Sophia* in part). [Van der Wulp, with a query.]
- BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., iv, 126, 1889; vi, 175, 1893.
- VAN DER WULP, Biologia, Dipt., ii, 223, 1891.
- ? **cyanea** GIGLIO-TOS, Boll. R. Univ. Torino, viii, No. 147, 1893; Ditt. del Mess., iii, 61.—Angang, Mex. Query by himself.
- melaleuca** WIEDEMANN, Auss. Zw., ii, 369 (*Dexia*).—Rio Janeiro.
- MACQUART, Dipt. Exot., ii, 3, 83, pl. ix, f. 1.—Brazil.
- PERTY, Delectus Animal., 186, pl. xxxvii, f. 7.—Brazil.
- ? DESVOIDY, Myodaires, 318 (*Sophia punctata*). [Van der Wulp, with a doubt.]
- VAN DER WULP, Biologia, Dipt., ii, 224, pl. v, f. 5.—Guatemala; Panama.
- varipennis** VAN DER WULP, Biologia, Dipt., ii, 224.—Vera Cruz, Mex.

MYIOSCOTIPTERA.

- GIGLIO-TOS, Boll. R. Univ. Torino, viii, No. 147, 1893; Ditt. del Mess., iii, 62, 1894.
- cincta** GIGLIO-TOS, locis citatis.—Solco, Mex.

RHYNCHODEXIA.

BIGOT, Bull. Soc. Ent. France, 1885, p. xi (*Rhynchiodexia* and *Rhamphimina*).

VAN DER WULP, Biologia, Dipt., II, 225, 1891, def. and table of Mexican species; syn.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 182, 1893, suggest *Myiomima*, and in the index write "*? Myiomima*."

Note.—There is much confusion about the species of *Rhamphimina*.

Most of Bigot's species certainly do not belong to *Rhynchodexia*.

angulata VAN DER WULP, Biologia, Dipt., II, 233.—Guerrero, Mex.

Orizaba, Mex.—Giglio-Tos.

anthracina BIGOT, of V. d. Wulp, see *Eudexia obscura*.

argentina BIGOT, see *Ptilodexia*.

carolinensis BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 119, 167; VI, 173.—S. Car.

conjuncta VAN DER WULP, Biologia, Dipt., II, 228.—Guerrero and Durango, Mex.

discolor VAN DER WULP, Biologia, Dipt., II, 227.—Guerrero, Vera Cruz and Durango, Mex.

dubia BIGOT, see *Ptilodexia*.

formidabilis BIGOT, see *Eudexia*.

fraterna VAN DER WULP, Biologia, Dipt., II, 229.—Orizaba, Guerrero, etc., Mex.
GIGLIO-TOS, Ditt. del Mess., III, 61, note.—Oaxaca, Orizaba, Tehuacan, Mex.

fumipennis BIGOT, see *Ptilodexia*.

imitatrix VAN DER WULP, Biologia, Dipt., II, 236.—Guerrero, Tabasco, and Jalisco, Mex.

macroptera VAN DER WULP, Biologia, Dipt., II, 232.—Guerrero and Mexico City, Mex.

major BIGOT, see *Ptilodexia*.

omissa VAN DER WULP, Biologia, Dipt., II, 235.—Guerrero, Jalisco and N. Yucatan, Mex.

picta BIGOT, see *Leptoda*.

planifrons VAN DER WULP, Biologia, Dipt., II, 234, pl. v, f. 7.—Durango, Mex.

præusta VAN DER WULP, Biologia, Dipt., II, 235.—Durango, Mex.

punctipennis VAN DER WULP, Biologia, Dipt., II, 233.—Guerrero and Durango, Mex.

rubricauda BIGOT, Annales, 1888, 265 (*Rhamphimina*).—Cuba.

BRAUER, Sitzungsbericht d. K. Akad., CVIII, 14, has some enigmatical comments on the type, from which I gather that it is the same as *hamorrhua* V. d. W., placed under *Pelcteria robusta*.

rubricornis VAN DER WULP, Biologia, Dipt., II, 230.—Guerrero, N. Sonora, Tabasco, and Vera Cruz, Mex.

GIGLIO-TOS, Ditt. del Mess., III, 60, note.—Mex.

rufianalis VAN DER WULP, Biologia, Dipt., II, 231.—Guerrero, Jalisco, and N. Yucatan, Mex.

COQUILLETT, Proc. U. S. N. M., XXII, 254, oc. in Porto Rico (*Myocera*).

rufipennis MACQUART, see *Ptilodexia*.

rutilans VAN DER WULP, Biologia, Dipt., II, 227.—Guerrero, Mex.

scutellata VAN DER WULP, Biologia, Dipt., II, 230.—Durango, Mex.

GIGLIO-TOS, Ditt. del Mess., III, 60, note.—Orizaba, Mex.

simulans VAN DER WULP, Biologia, Dipt., II, 229.—N. Sonora, Mex.

sororia WILLISTON, Trans. Ent. Soc. Lond., 360, pl. XI, f. 98.—St. Vincent, W. I.

spinosa BIGOT, see *Hystriochodexia*.

striata VAN DER WULP, *Biologia*, Dipt., II, 234, pl. v, f. 6.—Panama.

strigilata VAN DER WULP, *Biologia*, Dipt., II, 232.—Durango, Mex.

tibialis DESVOIDY, see *Ptilodexia*.

tincticornis BIGOT, see *Ptilodexia major*.

varipes VAN DER WULP, *Biologia*, Dipt., II, 231.—Guerrero, Mex.

MYIOCERA.

DESVOIDY, *Myodaires*, 328, 1830 (*Myocera*).

VAN DER WULP, *Biologia*, Dipt., II, 236, 1891.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, VI, 175, 1893, change to *Myiocera*.

appendiculata BIGOT, see *Myiomima*.

bivittata COQUILLETT, *Proc. U. S. N. M.*, XXV, 121.—White Mts., N. Mexico.

✓ *cremides* WALKER, *List*, IV, 842 (*Dexia*).—N. A. N. J.—Smith Cat.

Gen. ref. by Coquillett, in litt.

melanogaster BIGOT, see *Sardiocera*.

rava VAN DER WULP, *Biologia*, Dipt., II, 237.—Guerrero and Durango, Mex.

Beulah, N. M.—Skinner.

ruficornis BIGOT, see *Sardiocera*.

simplex BIGOT, *Annales*, 1888, 266.—Mex.

VAN DER WULP, *Biologia*, Dipt., II, 237, note on type.

BRAUER, *Sitzungsbericht d. K. Akad.*, CVIII, 15, same.

tibialis DESVOIDY, of Chagnon's *List*, see *Ptilodexia*.

PARAPROSENA.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, IV, 127, 1889; VI, 175, 1893.

apicalis DESVOIDY, *Myodaires*, 316 (*Zelia*).—Carolina.

N. J.—Smith Cat., with gen. ref.

STOMATODEXIA.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, IV, 125, 1889; V, 369, 373, 1891; VI, 133, 1893.

VAN DER WULP, *Biologia*, Dipt., II, 238, 1891.

cothurnata WIEDEMANN, *Auss. Zw.*, II, 249 (*Stomoxys*).—Brazil.

BIGOT, *Annales*, 1888, 264 (*Proscna maculifera*).—Mex.

VAN DER WULP, *Biologia*, Dipt., II, 239.—Guerrero, Vera Cruz and Jalisco, Mex.; syn. of Bigot, from type.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, VI, 133.—Brazil.

GIGLIO-TOS, *Ditt. del Mess.*, III, 64, note.—Orizaba, Mex.

BRAUER, *Sitzungsbericht d. K. Akad.*, CVIII, 13, refers from the type to *St. flavipennis*, but with a doubt; as Van der Wulp also saw the type, I follow him in this point.

flavipennis WIEDEMANN, *Auss. Zw.*, II, 380 (*Dexia*).—Brazil.

VAN DER WULP, *Biologia*, Dipt., II, 138 (*Myobia*).—Guerrero, Mex.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, V, 407, gen. ref.

quadrinaculata WALKER, *Dipt. Saund.*, 319 (*Dexia*).—Brazil.

GIGLIO-TOS, *Ditt. del Mess.*, III, 64, note and gen. ref.; oc. in Mex.

similigena VAN DER WULP, *Biologia*, Dipt., II, 239.—Guerrero, Mex.

GIGLIO-TOS, *Ditt. del Mess.*, III, 64, oc. in Orizaba and Oaxaca, Mex.

MEGAPARIA.

VAN DER WULP, *Biologia*, Dipt., II, 240, 1891.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, VI, 172, 1893.

Also mentioned by B. and B., v, 362, 1891, as a new genus, unnamed from Ciudad, Mex.

flaveola COQUILLET, *Proc. U. S. N. M.*, XXV, 121.—Col.

opaca COQUILLET, *Jour. N. Y. Ent. Soc.*, VII, 218.—Jacksonville, Fla. (by misprint Jackson, Fla.).

venosa VAN DER WULP, *Biologia*, Dipt., II, 240, pl. v, f. 9.—Durango, Mex.

GIGLIO-TOS, *Ditt. del Mess.*, III, 64, notes.—Mex.

MELANOPHORA.

MEIGEN, *Illig. Mag.*, II, 279, 1803; *Syst. Besch.*, VII, 213, 1838.

SCHINER, *Fauna Austr.*, I, 552, 1862.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, IV, 111, 1889; VI, 159, 1893.

diabroticæ SHIMER, see *Celatoria*.

distincta DESVOIDY, see *Linnæmyia comta*.

nigripes DESVOIDY, see *Linnæmyia comta*.

roralis LINNÉ, *Fauna Suec.*, 2d ed., p. 455 (*Musca*); p. 459 (*Musca grossificationis*).—Sweden.

FABRICIUS, *Syst. Antl.*, 304 and 324 (*Musca roralis* and *Tephritis grossificationis*).

MEIGEN, *Syst. Besch.*, IV, 284 (*Tachina*).

SCHINER, *Fauna Austr.*, I, 553.

LOEW, in *Silliman's Journal*, oc. in N. A.

BRUES, *Ent. News*, XIV, 291, reared from sow-bug, *Porcellio* sp.—Woods Hole, Mass.

N. J.—Smith Cat.; Lawrence, Kans.—J. M. A.

TRIXODES.

COQUILLET, *Canad. Ent.*, XXXIV, 201, 1902.

obesa COQUILLET, loc. cit.—Sierra Madre, Chihuahua, Mex.; Gila R., N. M.

CAMARONA.

VAN DER WULP, *Biologia*, Dipt., II, 241, 1891.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, VI, 174, 1893, notes.

cæruleonigra VAN DER WULP, *Biologia*, Dipt., II, 242.—Guerrero, Mex.

xanthogaster VAN DER WULP, *Biologia*, Dipt., II, 241, pl. v, f. 11.—Guerrero, Mex. (*xanthogastra*).

DEXIA.

MEIGEN, *Syst. Besch.*, V, 33, 1826.

SCHINER, *Fauna Austr.*, I, 588, 1862.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, IV, 120, 1889; VI, 174, 1893.

VAN DER WULP, *Biologia*, Dipt., II, 242, 1891.

abdominalis DESVOIDY, *Myodaires*, 306 (*Estheria*).—Nova Scotia.

abzoe WALKER, *List*, IV, 846.—Ga.

æneiventris WIEDEMANN, see *Mesembrinella*.

albifrons WALKER, *Dipt. Saund.*, 317.—U. S.

analis SAY, see *Leskia*.

analis DESVOIDY, *Myodaires*, 315 (*Zelia*).—Carolina.

apicalis DESVOIDY, see *Paraproscna*.

- canescens* WALKER, Dipt. Saund., 310.—U. S.
cerata WALKER, List, iv, 847.—N. A.
cremides WALKER, see *Myiocera*.
dives WIEDEMANN, see *Euantha*.
flavipennis WIEDEMANN, see *Stomatodexia*.
fuscanipennis MACQUART, Dipt. Exot., Suppl. I, 188, pl. xx, f. 11.—Yucatan.
genuina VAN DER WULP, Biologia, Dipt., II, 243.—Guerrero, Mex.
gracilis WIEDEMANN, see *Leptoda*.
halone WALKER, List, iv, 837.—Ga.
harpasa WALKER, List, iv, 840.—N. A.
melanocera DESVOIDY, Myodaires, 312.—Carolina.
? nigriceps BIGOT, Annales, 1888, 267 (*Myostoma*).—Wash.
 BRAUER, Sitzungsbericht d. K. Akad., CVIII, 11, says will form a new genus
 near *Dexia*, from type; hence I place here provisionally with query.
ogoa WALKER, List, iv, 841.—Nova Scotia.
pedestris WALKER, Dipt. Saund., 313.—U. S.
pertecta WALKER, Trans. Ent. Soc., n. ser., v, 307.—Mex.
? plumosa WIEDEMANN, Auss. Zweifl., II, 370.—Brazil.
 BIGOT, in Sagra's Cuba, 815, oc. in Cuba. Very doubtful, hence the ques-
 tion.—J. M. A.
postica WALKER, Dipt. Saund., 310.—Ga.
prexaspes WALKER, List, iv, 837 (*Estheria*).—Ga.
pristis WALKER, see *Macquartia*.
punctata DESVOIDY, Myodaires, 308 (*Dinera*).—Philadelphia.
rostrata DESVOIDY, Myodaires, 315 (*Zelia*).—N. A.
rubriventris MACQUART, Dipt. Exot., Suppl. I, 188; pl. xx, f. 10.—Yucatan.
rufipennis MACQUART, see *Ptilodexia*.
strenua DESVOIDY, Myodaires, 315 (*Zelia*).—San Domingo.
 Porto Rico—Roeder.
suavis VAN DER WULP, Tijdschr. v. Ent., XXVI, sep. 33.—Guadeloupe.
thomæ WIEDEMANN, see *Leptoda*.
tibialis DESVOIDY, see *Ptilodexia*.
triangularis VAN DER WULP, Tijdschr. v. Ent., x, 149, pl. v, f. 1-5.—Wis.
 Fla.—Johnson (*Gymnodexia*).
velox DESVOIDY, Myodaires, 316 (*Zelia*).—Carolina.
vertebrata SAY, Jour. Acad. Sci. Phil., VI, 176; Compl. Works, II, 366.—Ind.
 N. J.—Smith Cat. (*Zelia*); White Mts., N. H.—Slosson (id.); Ormond
 and Tampa, Fla.—Johnson (*Leptoda*).

ATELOGLOSSA.

- COQUILLETT, Jour. N. Y. Ent. Soc., VII, 219, 1899 (*Ateloglossa* by a mis-
 print).
cinerea COQUILLETT, loc. cit.—Waldboro, Me.

PHASIOPS.

- COQUILLETT, Jour. N. Y. Ent. Soc., VII, 219, 1899.
flava COQUILLETT, loc. cit.—Caldwell, N. Y.

MORPHOMYIA.

- RONDANI, Dipt. Ital. Prod., I, 85, 1856.
 BRAUER and BERGENSTAMM, Zwcifl. d. Kaiserl. Mus., IV, 150, 1889 v, 389,
 1891; VI, 176, 1893.
rufonotata BIGOT, Annales, 1888, 269.—Cal.

ACRONACANTHA.

VAN DER WULP, *Biologia*, Dipt., II, 243, 1891.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, VI, 182, 1893.

nubilipennis VAN DER WULP, *Biologia*, Dipt., II, 243, pl. v, f. 12.—Costa Rica.

DEXIOSOMA.

RONDANI, *Dipt. Ital. Prod.*, I, 85, 1856.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, IV, 117, 1889; VI, 171, 1893.

VAN DER WULP, *Biologia*, Dipt., II, 244, 1891.

fumipennis BIGOT, see *Ptilodexia*.

partitum BIGOT, *Annales*, 1888, 270.—Mex.

VAN DER WULP, *Biologia*, Dipt., II, 245, note on type.

BRAUER, *Sitzungsbericht d. K. Akad.*, CVIII, 14, same; suggests *Pachygraphia*, a South American genus.

vibrissatum VAN DER WULP, *Biologia*, Dipt., II, 244, pl. v, f. 13.—Tabasco, Mex.

GIGLIO-TOS, *Ditt. del Mess.*, III, 63, note.—Tuxpango, Mex.

MEGAPROSOPUS.

MACQUART, *Dipt. Exot.*, II, 3, 83, 1843.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, IV, 117, 1889; VI, 171, 1893.

michiganensis TOWNSEND, see *Microphthalma disjuncta*.

rufiventris MACQUART, *Dipt. Exot.*, II, 3, 84, pl. x, f. 1.—Mex.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, IV, 117; VI, 171.

MACROMETOPA.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, IV, 117, 1889; V, 362, 1891; VI, 172, 1893.

VAN DER WULP, *Biologia*, Dipt., II, 245, 1891.

calogaster BIGOT, *Annales*, 1888, 266 (*Microphthalma*).—Mex.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, IV, 166 (*Macrometopa mexicana*); VI, 171 (id.).—Mex.

VAN DER WULP, *Biologia*, Dipt., II, 245, pl. v, f. 14, desc. and syn.—Guerrero and Morelos, Mex.

BRAUER, *Sitzungsbericht d. K. Akad.*, CVIII, 10, confirms syn. and gen. ref., from type.

STENODEXIA.

VAN DER WULP, *Biologia*, Dipt., II, 246, 1891.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, V, 379, 1891; VI, 133, 1893.

albicincta VAN DER WULP, *Biologia*, Dipt., II, 246, pl. v, f. 15.—Tabasco and N. Yucatan, Mex.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, VI, 133.

PTILODEXIA.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, IV, 119, 1889 (*Ptilodexia* and *Clinoneura*); V, 363, notes and syn., 1891; VI, 173, 1893.

? **argentina** BIGOT, *Annales*, 1888, 265 (*Rhamphinina*).—Argentina.

BRAUER, *Sitzungsbericht d. K. Akad.*, CVIII, 14; a species from Mexico in the Imperial Museum is probably the same, compared with the type; hence I list it with a question.

- dubia** BIGOT, Bull. Soc. Ent. France, 1885, p. xi (*Rhamphiniina*).—Mex.
 VAN DER WULP, Biologia, Dipt., II, 236, note; perhaps *Rhynchodexia*.
 BRAUER, Sitzungsbericht d. K. Akad., CVIII, 15, gen. ref. and note, from type.
- fumipennis** BIGOT, Annales, 1888, 270 (*Dexiosoma*).—Mex.
 VAN DER WULP, Biologia, Dipt., II, 230, 245, is not a *Dexiosoma*.
 BRAUER, Sitzungsbericht d. K. Akad., CVIII, 14, notes and gen. ref., from type.
- longicornis** BIGOT, Annales, 1888, 270 (*Dexiosoma*).—Mex.
 VAN DER WULP, Biologia, Dipt., II, 230, 245, refers to *Rhynchodexia*, from type.
 BRAUER, Sitzungsbericht d. K. Akad., CVIII, 14, refers to *Ptilodexia*, from type, with additional notes.
 Note.—Van der Wulp included *Ptilodexia* in *Rhynchodexia*, hence there is no contradiction.
- major** BIGOT, Annales, 1888, 265 and 266 (*Rhamphiniina major* and *tincticornis*).—Mex. and Wash.; Mex.
 VAN DER WULP, Biologia, Dipt., II, 228 (*Rhynchodexia tincticornis*).—Paso del Macho, Mex.; Costa Rica.
 GIGLIO-TOS, Ditt. del Mess., III, 60, notes (*Rhynchodexia*).—Mex.
 BRAUER, Sitzungsbericht d. K. Akad., CVIII, 14, 15, syn. of Bigot and gen. ref., from type.
- rufipennis** MACQUART, Dipt. Exot., II, 3, 87, pl. x, f. 3 (*Dexia*).—Nova Scotia.
 BRAUER, Sitzungsbericht d. K. Akad., CVIII, 14, determines Bigot's specimens (types?) to go in this genus.
 White Mts., N. H.—Mrs. Slosson.
- tibialis** DESVOIDY, Myodaires, 306 (*Estheria*).—Nova Scotia.
 White Mts., N. H.—Slosson (*Ptilodexia*); Montreal—Chagnon (id.). Coquillett in litt. (id.).
 Beulah, N. M.—Skinner (*Myocera*).
- tincticornis** BIGOT, see *major*.

SARDIOCERA.

- BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 119, 1889; VI, 173, 1893.
- ruficornis** BIGOT, Annales, 1888, 266 (*Myocera*).—Baltimore.
- valida** WIEDEMANN, Auss. Zw., II, 387 (*Musca*).—No locality.
 BIGOT, Annales, 1888, 269 (*Phorostoma melanogaster*).—N. Y.
 BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 119, 167; V, 363, ref. to Wied.; VI, 173.—Carolina.
 BRAUER, Sitzungsbericht d. K. Akad., CVIII, 12, note on Bigot's type; syn.

CHOLOMYIA.

- BIGOT, Bull. Soc. Ent. France, 1884, xxxvii.
- VAN DER WULP, Biologia, Dipt., II, 246, 1891.
- BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., V, 375, notes.
- inaequipes** BIGOT, Bull. Soc. Ent. France, 1884, xxxvii.—Mex.
 VAN DER WULP, Biologia, Dipt., II, 247, pl. VI, f. 1, 2.—Guerrero and Tabasco, Mex. (*Dexia longipes* FABR., of S. A., may be the same.)
 BRAUER, Sitzungsbericht d. K. Akad., CVI, 37, would put this in *Leptoda*, but Van der Wulp's figures seem to show too much difference.

MELALEUCA.

VAN DER WULP, *Biologia*, Dipt., II, 247, 1891.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, VI, 183, 1893.

spectabilis VAN DER WULP, *Biologia*, Dipt., II, 248, pl. VI, f. 3.—Guerrero, Mex.

EUANTHA.

VAN DER WULP, *Tijdschr. v. Ent.*, XXVIII, 198, 1885; *Biologia*, Dipt., II, 248, 1891.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, IV, 137, 1889; VI, 128, 1893.

TOWNSEND, *Annals and Mag. Nat. Hist.*, XIX, 34, 1897, notes.

liturata OLIVIER, *Encycl. Méth.*, VIII, 423 (*Ocyptera*).—Carolina.

WIEDEMANN, *Auss. Zw.*, II, 377 (*Dexia dives*).—Ky.

MACQUART, *Dipt. Exot.*, II, 3, 67, pl. VII, f. 5 (*Scricocera pictipennis*).—Philadelphia.

VAN DER WULP, *Biologia*, Dipt., II, 249, pl. VI, f. 4 (*dives*).—Guerrero, Mex., and Guatemala; syn. of Macquart with Wiedemann.

TOWNSEND, *Annals and Mag. Nat. Hist.*, XIX, 34, notes (*dives*).—Vera Cruz.

COQUILLETT, *Revis. Tachin.*, 86, footnote, syn. of Wiedemann with Olivier. N. J.—Smith Cat.: St. Augustine, Fla.—Johnson.

pulchra VAN DER WULP, *Biologia*, Dipt., II, 249.—Guerrero, Mex.

LEPTODA.

VAN DER WULP, *Tijdschr. v. Ent.*, XXVIII, 196, 1885; *Biologia*, Dipt., II, 250, 1891.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, VI, 133, 1893.

atrifrons WIEDEMANN, *Auss. Zw.*, II, 403 (*Musca*).—No locality.

BIGOT, *Annales*, 1888, 267 (*Tromodcsia hæmorrhoidalis*).—Mex.

VAN DER WULP, *Biologia*, Dipt., II, 238, pl. V, f. 8 (id.), redesc. of Bigot's type.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, VI, 183, syn.

gracilis WIEDEMANN, *Auss. Zw.*, II, 373 (*Dexia*).—No locality.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, IV, 125; VI, 133.—Central America; Mexico.

VAN DER WULP, *Biologia*, Dipt., II, 250, pl. VI, f. 5.—Guerrero, Mex.; Guatemala.

picta BIGOT, *Annales*, 1888, 265 (*Rhamphiniina*).—Cuba.

BRAUER, *Sitzungsbericht d. K. Akad.*, CVI, 31, gen. ref., from type.

potens WIEDEMANN, *Auss. Zweifl.*, II, 312 (*Tachina*).—Rio Janeiro.

MACQUART, *Dipt. Exot.*, II, 3, 58, refers to genus *Eurigaster*.

BIGOT, in Sagra's Cuba, 810, oc. in Cuba.

BRAUER, *Sitzungsbericht d. K. Akad.*, CVI, 30, gen. ref.

rufina BIGOT, *Bull. Soc. Ent. France*, 1885, 3 (*Homodexia*).—Cal.

BRAUER, *Sitzungsbericht d. K. Akad.*, CVIII, 8, gen. ref., from type; notes.

semirufa VAN DER WULP, *Biologia*, Dipt., II, 250.—N. Yucatan, Mex.

thomæ WIEDEMANN, *Auss. Zw.*, II, 379 (*Dexia*).—St. Thomas, W. I.

WALKER, *List*, IV, 840, oc. in Jamaica (*Dexia*).

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, V, 406, gen. ref., from type.

URAMYIA.

DESVOIDY, Myodaires, 215, 1830.

BIGOT, Bull. Soc. Ent. France, 1885, xxxiii (*Oxyderia*). [V. d. W.]

VAN DER WULP, Biologia, Dipt., II, 251, 1891; Tijdschr. v. Ent., xxx, 168.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 130, 1889; VI, 135, 1893 (*Uromyia*).

acuminata BIGOT, Bull. Soc. Ent. France, 1885, xxxiii (*Oxyderia*).—Brazil.

VAN DER WULP, Biologia, Dipt., II, 251, pl. VI, f. 6 (*producta*); Tijdschr. v. Ent., xxx, 168, correction and extended notes on the two species, with figs. on pl. XI.—Cordova and Jalapa, Mex.

producta DESVOIDY, Myodaires, 216.—Brazil.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 130; VI, 135.—Central and S. Amer.; Venezuela. According to V. d. W., these may have been specimens of *acuminata*.

CORDYLIGASTER.

MACQUART, Dipt. Exot., II, 3, 90, 1843.

VAN DER WULP, Biologia, Dipt., II, 252, 1891.

GIGLIO-TOS, Ditt. del Mess., III, 67, 1891, proposes to change the name to *Cordylidexia*, on account of preoccupation. I am not certain that the name in Libellulidæ was originally spelled the same.

minuscula VAN DER WULP, Biologia, Dipt., II, 252, pl. VI, f. 7.—Guerrero and Tabasco, Mex.

GIGLIO-TOS, Ditt. del Mess., III, 67, note.—Orizaba, Mex.

CHÆTONA.

VAN DER WULP, Biologia, Dipt., II, 253, 1891.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 378, 1891.

congrua VAN DER WULP, Biologia, Dipt., II, 253.—Guerrero, Mex.

cruenta GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 147, 1893; Ditt. del Mess., III, 65.—Mex.

flavipennis COQUILLET, Proc. U. S. N. M., xxv, 121.—Vinton, Ohio.

grisea COQUILLET, Jour. N. Y. Ent. Soc., VII, 222.—Ga.

longiseta WIEDEMANN, Auss. Zw., II, 381 (*Dexia*).—Brazil.

BIGOT, Annales, 1888, 262 (*Viviana citrina*).—Mex. [Brauer.]

VAN DER WULP, Biologia, Dipt., II, 253, pl. VI, f. 8.—Costa Rica.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 386, note.

nitens COQUILLET, Jour. N. Y. Ent. Soc., VII, 221.—Franconia, N. H.

? White Mts., N. H.—Slosson (*"tenebrosa* Coq. MSS."—this may be the species, described under a different name).

spinosa COQUILLET, Jour. N. Y. Ent. Soc., VII, 222.—Pa.

zonata BIGOT, Annales, 1888, 261 (*Ceromasia*).—Mex.

BRAUER, Sitzungsbericht d. K. Akad., CVI, 15, type redesc.; gen. ref.

METADEXIA.

COQUILLET, Jour. N. Y. Ent. Soc., VII, 220, 1899.

tricolor COQUILLET, loc. cit.—La., Kans., N. M.

Thelairodes basalis may also belong here.

THELAIRODES.

VAN DER WULP, Biologia, Dipt., II, 254, 1891, def. and table of species.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 377, 1891; VI, 131, 1893.

basalis GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 147, 1893; Ditt. del Mess., III, 65.—Mex.

N. J.—Smith Cat. (*Metadexia*).

cinereicollis VAN DER WULP, Biologia, Dipt., II, 255.—Guerrero, Mex.

pallida VAN DER WULP, Biologia, Dipt., II, 255, pl. VI, f. 10.—Guerrero, Mex.

spinosa BIGOT, Annales, 1888, 268 (*Homodexia*).—Mex.

VAN DER WULP, Biologia, Dipt., II, 263, doubtfully refers to *Morinia*.

BRAUER, Sitzungsbericht d. K. Akad., CVII, 23, gen. ref., from type.

vittigera BIGOT, Annales, 1888, 267 (*Homodexia*).—Mex.

VAN DER WULP, Biologia, Dipt., II, 254, pl. VI, f. 9.—Guerrero, Vera Cruz and Tabasco, Mex.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 131.

THELAIRA.

DESVOIDY, Myodaires, 214, 1830.

SCHINER, Fauna Austr., I, 554, 1862.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 110, 1889; V, 358, 1891; VI, 131, 1893.

leucozona PANZER, Fauna Germ., CIV, 19 (*Musca*); 18 (*Musca nigripes*).—Europe.

FALLÉN, Muscides, 42 (*Musca lateralis* and *nigrina*).

ZETTERSTEDT, Dipt. Scand., III, 1267.

SCHINER, Fauna Austr., I, 555.

Harrison, Idaho—J. M. A., identified for me by Coquillett.

mexicana MACQUART, Dipt. Exot., Suppl. IV, 231, pl. XXI, f. 12 (*Proscna*).—Mex.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., V, 406, gen. ref.

XANTHODEXIA.

VAN DER WULP, Biologia, Dipt., II, 256, 1891.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., V, 377, 1891.

sericea WIEDEMANN, Auss. Zw., II, 316 (*Tachina*).—Brazil.

VAN DER WULP, Biologia, Dipt., II, 256, pl. VI, f. 11.—Guerrero, Vera Cruz and Tabasco, Mex.

PSEUDODEXIA.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., V, 372, 378, 1891; VI, 131, 1893.

albifacies BIGOT, Annales, 1888, 268 (*Oplisa*).—Mex.

VAN DER WULP, Biologia, Dipt., II, 264, refers to *Anisia*.

BRAUER, Sitzungsbericht d. K. Akad., CVI, 32, gen. ref., from type.

dubia BIGOT.—Such a species is mentioned by Brauer, Sitzungsbericht d. K. Akad., CVI, 29, from Mexico, among Bigot's types. Brauer could not find the place of publication, nor can I. Probably it was never published.

longicornis BIGOT, Annales, 1888, 267 (*Homodexia*).—Mex.

VAN DER WULP, Biologia, Dipt., II, 264, suggests *Calodexia*.

BRAUER, Sitzungsbericht d. K. Akad., CVI, 29, redesc. of type and gen. ref.

pallidicornis BIGOT, Annales, 1888, 268 (*Anthracomia*).—Mex.

VAN DER WULP, Biologia, Dipt., II, 264, note on generic position.

BRAUER, Sitzungsbericht d. K. Akad., CVI, 32, notes on type, and gen. ref.

CALODEXIA.

VAN DER WULP, Biologia, Dipt., II, 257, 1891, def. and table of species.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 131, 1893—not V, 375, which was based on a misunderstanding.

calceata VAN DER WULP, *Biologia*, Dipt., II, 258.—Guerrero, Vera Cruz and Tabasco, Mex.

longicornis BIGOT, see *Pseudodexia*.

majuscula VAN DER WULP, *Biologia*, Dipt., II, 257, pl. VI, f. 12.—Tabasco, Mex.

pallidicornis BIGOT, see *Pseudodexia*.

obscuripes VAN DER WULP, *Biologia*, Dipt., II, 258.—Vera Cruz, Mex.

RHOMBOTHYRIA.

VAN DER WULP, *Biologia*, Dipt., II, 259, 1891.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, V, 377, 1891; VI, 131, 1893.

flavicosta VAN DER WULP, *Biologia*, Dipt., II, 259, pl. VI, f. 13.—Guerrero, Mex.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, VI, 131.

PSEUDOMORINIA.

VAN DER WULP, *Biologia*, Dipt., II, 259, 1891.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, VI, 183, 1893, notes.

pictipennis VAN DER WULP, *Biologia*, Dipt., II, 260, pl. VI, f. 14.—Guerrero, Mex.

MORINIA.

DESVOIDY, *Myodaires*, 264, 1830.

RONDANI, *Dipt. Ital. Prod.*, I, 87, 1856 (*Anthracomyia*). [B. B.]

SCHINER, *Fauna Austr.*, I, 550, 1862.

VAN DER WULP, *Biologia*, Dipt., II, 260, 1891.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, IV, 110, 1889; V, 381, 1891; VI, 183, 205, 1893.

fumata VAN DER WULP, *Biologia*, Dipt., II, 261.—Tabasco, Mex.

longitarsis VAN DER WULP, *Biologia*, Dipt., II, 261.—Guerrero and Orizaba, Mex.

spinosa BIGOT, see *Thelairodcs*.

trichopoda VAN DER WULP, *Biologia*, Dipt., II, 261.—Vera Cruz and Tabasco, Mex.

washingtoniana BIGOT, *Annales*, 1888, 269.—Wash.

BRAUER, *Sitzungsbericht d. K. Akad.*, refers to *Anthracomyia* from type.

MELANODEXIA.

WILLISTON, *Dipt. of Death Valley Exped.*, 256, 1893.

tristis WILLISTON, loc. cit.—Monterey Co., Cal., and S. Cal.

COMYOPS.

VAN DER WULP, *Biologia*, Dipt., II, 262, 1891.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, VI, 135, 1893.

nigripennis VAN DER WULP, *Biologia*, Dipt., II, 262, pl. VI, f. 15.—Tabasco, Mex.

striaticollis VAN DER WULP, *Biologia*, Dipt., II, 262.—Guerrero, Mex.

CYRTOSOMA.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, VI, 131, 132, 1893.

rufum BRAUER and BERGENSTAMM, loc. cit.—Guerrero, Mex.

THERESIA.

DESVOIDY, *Myodaires*, 325, 1830.

tandrec DESVOIDY, *Myodaires*, 326.—Carolina.

HOMODEXIA.

BIGOT, Annales, Bull. Soc. Ent. France, 1885, xxvi.

VAN DER WULP, Biologia, Dipt., II, 263, shows that the genus is untenable, and distributes the species among other genera; this distribution however, is considerably modified by Brauer, on examination of the types.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 205, notes.

? *flavipes* BIGOT, Bull. Soc. Ent. France, 1885; Annales, 1888, 268.—Mex.

VAN DER WULP, Biologia, Dipt., II, 263, suggests *Telothyria*.

BRAUER, Sitzungsbericht d. K. Akad., CVII, 23, will form a new genus near *Calodexia*, from type.

longicornis BIGOT, see *Pseudodexia*.

rufina BIGOT, see *Leptoda*.

spinosa BIGOT, see *Thelairodcs*.

triangulifera BIGOT, see *Hypostena*.

? *vittigera* BIGOT, Annales, 1888, 267.—Mex. Query by Bigot.

SARCOPHAGIDÆ.

TOWNSEND, Trans. Amer. Ent. Soc., XIX, 279, table N. A. genera.

HOWARD, Proc. Wash. Acad. Sci., II, 561, note on habits.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 161, table of genera.

RILEY, 4th Rept. U. S. Ent. Comm., App., 109–111, compares larvæ with those of Tachinidæ; quoted by Comstock, Rept. Dept. Agr., 1879, 304.

MICROCHÆTINA.

VAN DER WULP, Biologia, Dipt., II, 240, 1891.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 162, 238, 1893 (the latter a note on an undescribed species of *Trichoprosopus*, as determined by Wulp, from Central America,—which they place here).

cinerea VAN DER WULP, Biologia, Dipt., II, 241, pl. v, f. 10.—Mazatlan, Mex.

Ormond, Fla.—Johnson.

HESPEROMYIA.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 114, 1889; V, 359, 1891; VI, 162, 1893.

erythroceræ BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 114.—Texas.

PARAMINTHO.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., V, 366, 1891; VI, 162, 1893.

VAN DER WULP, Biologia, Dipt., II, 265, 1895.

modulata VAN DER WULP, Biologia, Dipt., II, 266, pl. VII, f. 1.—Guerrero, Mex.

ONESIA.

DESVOIDY, Myodaires, 365, 1830.

SCHINER, Fauna Austr., I, 575, 1862.

VAN DER WULP, Biologia, Dipt., II, 288, 1896.

HENDEL, Wien. Ent. Zeit., XXI, 83, notes on hypopygial structures in this and related genera.

lucilioides VAN DER WULP, Biologia, Dipt., II, 288, pl. VII, f. 11.—Mexico City.

PECKIA.

- DESVOIDY, Myodaires, 335, 1830.
 MACQUART, Hist. Nat. Dipt., II, 222, 1835 (*Phrissopodia*); Dipt. Exot., II, 3, 96, 1843 (*Phrissopoda*).
 BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 124, 1889; VI, 163, 1893 (*Phrissopoda*).
 JOHNSON, Proc. Acad. Nat. Sci. Phil., 1894, 279, mentions an undet. species of *Phrissopoda* bred from a snail in Jamaica.
fortipes WALKER, Trans. Ent. Soc., n. ser., v, 310 (*Sarcophaga*).—Hayti.
immanis WALKER, List, IV, 815 (*Sarcophaga*).—Honduras.
 GIGLIO-TOS, Ditt. del Mess., III, 68 (*Phrissopoda*).—Mexico.
lamanensis DESVOIDY, Myodaires, 335.—Lamana.
 GIGLIO-TOS, Ditt. del Mess., III, 68, oc. in Orizaba, Mex. (*Phrissopoda*).
plumipes DESVOIDY, Myodaires, 336.—Hayti.
 WALKER, Trans. Ent. Soc., n. ser., v, pt. VII, 41 (*Sarcophaga intermutans*).—Mexico.
 GIGLIO-TOS, Ditt. del Mess., III, 68, syn. and oc.—Mex.
præceps WIEDEMANN, Auss. Zw., II, 355 (*Sarcophaga*).—Cuba.
 DESVOIDY, Myodaires, 335 (*imperialis*).—Cuba.
 MACQUART, Hist. Nat. Dipt., II, 223 (*imperialis*).—Cuba.
 MACQUART, Dipt. Exot., II, 3, 96, note and doubtful oc. at Port Jackson, Australia (*Phrissopoda*).
 WILLISTON, Trans. Amer. Ent. Soc., XIII, 307, oc. in San Domingo (id.).
 GIGLIO-TOS, Ditt. del Mess., III, 67, note (id.).—Mex.

SARCOPHAGA.

- MEIGEN, Syst. Besch., v, 14, 1826.
 SCHINER, Fauna Austr., I, 568, 1862.
 BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 122, 1889; VI, 164, 1893.
 VAN DER WULP, Biologia, Dipt., II, 266, 1895, notes and table of Mexican species.
 COQUILLETT, Proc. Acad. Nat. Sci. Phil., 1895, 317 (*Helicobia*). [Hough.]
 WILLISTON, Trans. Ent. Soc. Lond., 1896, 362, table of St. Vincent species.
 MIK, Wien. Ent. Zeit., XVII, 162–166, parasitic habits of European species.
Note.—Several undetermined species have been reared from grasshoppers in the western part of the United States.
acanthoptera VAN DER WULP, Biologia, Dipt., II, 271, pl. VII, f. 5.—Guerrero, Vera Cruz and Tabasco, Mex.
acerba WALKER, List, IV, 824.—Nova Scotia.
ægra WALKER, List, IV, 821.—Mass.
 N. J.—Smith Cat.; Lake Worth, Fla.—Johnson.
æquata VAN DER WULP, Biologia, Dipt., II, 286.—Guerrero and Tabasco, Mex.
afficta VAN DER WULP, Biologia, Dipt., II, 286.—Morelos, Vera Cruz, and N. Yucatan, Mex.
anaces WALKER, List, IV, 833.—“N. A.?”
anxia WALKER, List, IV, 818.—“N. A.?”
 Fla.—Johnson.
argyrocephala MACQUART, Dipt. Exot., Suppl., I, 192.—Texas.
aspera WALKER, List, IV, 825.—“N. A.?”
assidua WALKER, Dipt. Saund., 328.—U. S.
 HOWARD, Proc. Wash. Acad. Sci., II, 566, figs. and life hist.; reared from human excrement.—D. C.

MORGAN, Bull. 30, n. ser., Div. Ent., 1901, 25, figs. larva and adult; bred from *Melanoplus differentialis*.—Miss.

St. Augustine and Palatka, Fla.—Johnson.

aterrima DESVOIDY, Myodaires, 366 (*Peckia*).—Carolina.

avida WALKER, List, iv, 822.—Nova Scotia.

basalis WALKER, Dipt. Saund., 328.—U. S.

carnaria LINNÉ, does not occur in the United States, as I am positively assured by Dr. Hough, who has examined vast quantities of material without finding it. The following references undoubtedly refer to other species, probably several:

HARRIS, Cat. Ins. Mass., oc. in Mass.

RILEY, 7th Mo. Rept., 180, 181; 9th Rept., 95, parasitic on eggs of Rocky Mountain locust.

RILEY, 1st Rept. U. S. Ent. Comm., 289, 323, 324, fig., attacking eggs of the same, and also parasitic on the growing insects; 4th Rept. U. S. Ent. Comm., 107, fig.; app., 109; parasitic on *Aletia xyliua* in the south.

HUGO SUMMA, M.D., in St. Louis Med. and Surg. Journal, May, 1889, records a case of nasal myiasis in man due to *S. carnaria*; abstract in Insect Life, III, 40.

WALTER B. JOHNSON, M.D., in Ophthalmic Record, 1892, account of larva in ear of man; abstract in Insect Life, iv, 341.

LUGGER, 2d Rept. Ent. Minn., 1896, 155, fig.; habits, etc.

chætopygalis WILLISTON, Trans. Ent. Soc. Lond., 1896, 366.—St. Vincent, W. I.

chrysostoma WIEDEMANN, Auss. Zw., II, 356.—W. I.

SCHINER, Novara, 313, notes.—Brazil.

cimbicis TOWNSEND, Canad. Ent., XXIX, 126.—Brookings, S. D.; bred from *Cim-bex americana*.

HUNTER (S. J.), Kans. Univ. Quart., VII, 206, reared from *Melanoplus differentialis* in Kansas; "Alfalfa, Grasshoppers and Bees," Bull. Ent. Dept., Univ. of Kans., 33, notes and fig.

claripalpis VAN DER WULP, Biologia, Dipt., II, 280.—Guerrero and N. Yucatan, Mex.

comes WALKER, Dipt. Saund., 323.—U. S.

concinata WILLISTON, Trans. Ent. Soc. Lond., 1896, 364.—St. Vincent, W. I.

conclausa WALKER, Trans. Ent. Soc., n. ser., v, 309.—Mex.

conjungens VAN DER WULP, Biologia, Dipt., II, 272.—Vera Cruz and Orizaba, Mex.

consobrina DESVOIDY, Myodaires, 344 (*Myophora*).—Philadelphia.

cubensis MACQUART, Dipt. Exot., II, 3, 106, pl. XII, f. 6.—Cuba.

BIGOT, in Sagra's Cuba, 819.—Cuba.

BRAUER, Sitzungsbericht d. K. Akad., CVII, 21, note.

davidsonii COQUILLETT, Insect Life, v, 24.—Los Angeles Co., Cal.; larvæ feeding on eggs of the spider *Phidippus opifex* McC.

DAVIDSON, Insect Life, vi, 268, reared from egg sacs of *Argiope argentata*, Santa Catalina Id., Cal.

debilis VAN DER WULP, Biologia, Dipt., II, 279, pl. VII, f. 9.—Guerrero, Vera Cruz and Tabasco, Mex.

deleta VAN DER WULP, Biologia, Dipt., II, 282.—Guerrero, Mex.

derelicta WALKER, Dipt. Saund., 322.—U. S.

despensa WALKER, Trans. Ent. Soc., n. ser., v, 309.—Mex.

diversinervis VAN DER WULP, Biologia, Dipt., II, 274, pl. VII, f. 7.—Tabasco, Mex.

diversipes COQUILLETT, Proc. U. S. N. M., XXII, 255.—Porto Rico.

effreneta WALKER, Trans. Ent. Soc., n. ser., v, 309.—Mex.

- errabunda** VAN DER WULP, *Biologia*, Dipt., II, 278.—Guerrero and Tabasco, Mex.
fervida DESVOIDY, *Myodaires*, 341 (*Myophora*).—San Domingo.
fortipes WALKER, see *Peckia*.
fulvipes MACQUART, *Dipt. Exot.*, II, 3, 105, pl. XII, f. 5.—Cuba.
fulvipes (bis) WALKER, *Dipt. Saund.*, 328.—U. S.
 St. Augustine, Fla.—Johnson.
fuscianalis VAN DER WULP, *Biologia*, Dipt., II, 275.—Vera Cruz and Tabasco, Mex.
georgina WIEDEMANN, *Auss. Zw.*, II, 357.—Ga.
 HARRIS, *Ins. Inj. Veget.*, 3d edit., 613, oc. in Mass.
 WALKER, *List*, IV, 829, oc. in Brit. Amer.
 BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, V, 414, note.
helicis TOWNSEND, *Psyche*, Feb., 1892, 220.—Ohio; bred from *Helix thyroides*.
 COQUILLETT, *Proc. Acad. Nat. Sci. Phil.*, 1895, 317 (*Helicobia*); *Proc. U. S. N. M.*, XXII, 255, oc. in Porto Rico (id.).—Fla., Miss., Ill., Ohio, D. C., Cal.
 HOWARD, *Ins. Life*, VI, 372, records breeding from *Loxostege sticticalis*.
 TOWNSEND, *Psyche*, June, 1893, 468, reared from *Lachnosterna* sp., *Pieris rapa*, and *Leucania unipuncta* by Forbes.
 MORGAN, *Bull.* 30, n. ser., Div. of Ent., 1901, 25, bred from *Melanoplus differentialis*.—Miss.
 N. J.—Smith Cat.; White Mts., N. H.—Slosson.
hunteri HOUGH, *Kans. Univ. Quart.*, VII, 207–210, figs.; also in Hunter's "Alfalfa, Grasshoppers and Bees," *Bull. Ent. Dept.*, Univ. of Kans., 34, fig.
 —Kansas; bred from *Melanoplus differentialis*.
 MORGAN, *Bull.* 30, n. ser., Div. of Ent., 1901, 25, bred from *Melanoplus differentialis*.—Miss.
immanis WALKER, see *Peckia*.
importuna WALKER, *List*, IV, 819.—"N. A.?"
incerta WALKER, *Dipt. Saund.*, 324.—Jamaica.
 HOWARD, *Canad. Ent.*, XXXIII, 43, oc. Va., bred from cowdung.
 Jamaica—Johnson; Cuba—Bigot, in Sagra.
innota WALKER, *Trans. Ent. Soc.*, n. ser., V, 308.—Mex.
intermutans WALKER, see *Peckia plumipes*.
lambens WIEDEMANN, *Auss. Zw.*, II, 365.—W. I.
 HOWARD, *Proc. Wash. Acad. Sci.*, II, 567, note on habits.
 Porto Rico—Roeder and Coquillett.
lanipes DESVOIDY, *Myodaires*, 336.—Carolina.
leucaniæ TOWNSEND, *Psyche*, June, 1893, 468.—Ill.; bred from *Leucania unipuncta* How.
lherminieri DESVOIDY, *Myodaires*, 339 (*Myophora*).—Carolina.
micropyga VAN DER WULP, *Biologia*, Dipt., II, 279.—Guerrero, Mex.
micropygialis WILLISTON, *Trans. Ent. Soc. Lond.*, 1896, 363.—St. Vincent, W. I.
muscoides BIGOT, in Sagra's Cuba, 816.—Cuba.
oberrans VAN DER WULP, *Biologia*, Dipt., II, 283.—Guerrero, Mex.
obsoleta WIEDEMANN, *Auss. Zweifl.*, II, 367.—W. I.
 ? GIGLIO-TOS, *Ditt. del Mess.*, III, 68, doubtful oc. in Tuxpango, Mex.
occidua FABRICIUS, *Syst. Ent.*, IV, 315; *Syst. Antl.*, 288 (both *Musca*).—W. I.
 WIEDEMANN, *Auss. Zweifl.*, II, 368.—W. I.
 COQUILLETT, *Proc. U. S. N. M.*, XXII, 254, oc. in Porto Rico.
ochripyga VAN DER WULP, *Biologia*, Dipt., II, 285.—Guerrero, Tabasco and N. Yucatan, Mex.

- opifera** COQUILLET, Insect Life, v, 22.—Los Angeles, Cal.; parasitic on *Melanoplus devastator* SCUD.
- otiosa** WILLISTON, Trans. Ent. Soc. Lond., 1896, 364.—St. Vincent, W. I.
- pallinervis** THOMSON, Eugenes Resa, 535.—California and Honolulu.
- pallipes** WALKER, Dipt. Saund., 329.—U. S.
- pavida** WILLISTON, Trans. Ent. Soc. Lond., 1896, 365.—St. Vincent, W. I.
- perneta** WALKER, Trans. Ent. Soc., n. ser., v, 308.—Mexico.
- pexata** VAN DER WULP, Biologia, Dipt., II, 284.—Guerrero, Vera Cruz and Tabasco, Mex.
- plinthopyga** WIEDEMANN, Auss. Zweifl., II, 360.—St. Thomas, W. I.
WALKER, Linn. Trans., XVII, 352, oc. in Brazil.
GIGLIO-TOS, Ditt. del Mess., III, 69.—Orizaba and Tuxpango, Mex.
Porto Rico—Roeder and Coquillett; Jamaica—Johnson.
- plumigera** VAN DER WULP, Biologia, Dipt., II, 273, pl. VII, f. 6.—Tabasco, Mex.
- plumipes** DESVOIDY, see *Peckia*.
- prævolans** VAN DER WULP, Biologia, Dipt., II, 275, pl. VII, f. 8.—Guerrero and Orizaba, Mex.
- protrita** WALKER, Trans. Ent. Soc., n. ser., v, 317 (*Anthomyia*).—Mexico.
The type is a female *Sarcophaga*—STEIN, 205.
- pusilla** BIGOT, in Sagra's Cuba, 817.—Cuba.
- pusiola** VAN DER WULP, Biologia, Dipt., II, 278.—Mexico City, Guerrero and Orizaba, Mex.
- quadrisetosa** COQUILLET, Ent. News, XII, 17 (*Helicobia*).—Md., D. C., Va.
HOWARD, Proc. Wash. Acad. Sci., II, 568 (id.), note on habits; breeds in human excrement; Canad. Ent., XXXIII (id.), oc. in Va., bred from cow-dung.
- querula** WALKER, List, IV, 821.—"N. A.?"
- rabida** WALKER, List, IV, 823.—Nova Scotia.
- rapax** WALKER, List, IV, 818.—"N. A.?"
- rediviva** WALKER, List, IV, 823.—Martin Falls, Canada.
- rubella** WIEDEMANN, Auss. Zweifl., II, 357.—Antigua.
- rufipalpis** MACQUART, Dipt. Exot., II, 3, 102.—Brazil.
VAN DER WULP, Notes from the Leyden Museum, IV, 88; Tijdschr. v. Ent., XXVI, sep. 36, oc. in Curaçao and note.
- rufitibia** VAN DER WULP, Biologia, Dipt., II, 270, pl. VII, f. 3.—Guerrero, Mex.
- rufiventris** WIEDEMANN, Auss. Zweifl., II, 362.—Brazil.
BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 414, notes; occurs in Texas.
- sarraceniae** RILEY, Trans. Acad. Sci. St. Louis, III, 238; App. to 4th Rept. U. S. Ent. Comm., quotes orig. desc. of larva and pupa.—Mo.
RILEY, 2d Rept. U. S. Ent. Comm., 262; Gen. Index Mo. Repts., 60.
COMSTOCK, Rept. Dept. Agr., 1881, 304, pl. XIV, f. 2, reared from pupa of *Actia argillacea* in the south.
HOWARD, Proc. Wash. Acad. Sci., II, 565, figs. and life hist.; bred from human excrement.
MORGAN, Bull. 30, n. ser., Div. Ent., 1901, 25, figs. larva and adult; bred from *Melanoplus differentialis*.—Miss.
Fla.—Johnson; White Mts., N. H.—Slosson; Axton, N. Y.—M. and H. Province of Quebec—Fyles.
- setulosa** VAN DER WULP, Biologia, Dipt., II, 276.—Durango, Mex.
- ? spinigena** RONDANI, Arch. Zool., III, 26.—Valdivia, S. A.
GIGLIO-TOS, Ditt. del Mess., III, 68, note.—Mexico.
VAN DER WULP, Biologia, Dipt., II, 287, note; doubts the generic ref.

stellata VAN DER WULP, *Biologia*, Dipt., II, 272.—Guerrero, Vera Cruz and Tabasco, Mexico.

stimulans WALKER, *List*, IV, 817.—“N. A.?”

sueta VAN DER WULP, *Biologia*, Dipt., II, 281.—Guerrero, Mex.

surrubea VAN DER WULP, *Biologia*, Dipt., II, 273.—Tabasco, Mex.

taitensis SCHINER, *Novara*, 314.—Tahiti.

VAN DER WULP, *Tijdschr. v. Ent.*, XXVI, sep. 36, oc. in Guadeloupe and note.

tenuiventris VAN DER WULP, *Biologia*, Dipt., II, 282.—Guerrero and Tabasco, Mex.

tridens VAN DER WULP, *Biologia*, Dipt., II, 281.—Guerrero, Mex.

trigonomaculata MACQUART, *Dipt. Exot.*, II, 3, 106, pl. XII, f. 2.—Mex.

tripartita VAN DER WULP, *Biologia*, Dipt., II, 284.—Jalisco, Mex.

triplasia VAN DER WULP, *Biologia*, Dipt., II, 283, pl. VII, f. 10.—Guerrero, Mex.

trivialis VAN DER WULP, *Biologia*, Dipt., II, 277.—Mexico, numerous places.

HOWARD, *Proc. Wash. Acad. Sci.*, II, 567, oc. in Md., D. C. and Va.; bred from human excrement.

trivittata MACQUART, *Dipt. Exot.*, II, 3, 105, pl. XII, f. 3.—Cuba, Mex.

BIGOT, *Sagra's Cuba*, 816.—Cuba.

turbata VAN DER WULP, *Biologia*, Dipt., II, 276.—Guerrero, Tabasco and Orizaba, Mex.

uncata VAN DER WULP, *Biologia*, Dipt., II, 277.—Guerrero and N. Yucatan, Mex.

vagabunda VAN DER WULP, *Biologia*, Dipt., II, 270, pl. VII, f. 4.—Guerrero, etc., in Mexico.

ventricosa VAN DER WULP, *Biologia*, Dipt., II, 274.—Guerrero and Tabasco, Mex.

vigil WALKER, *List*, IV, 831.—Nova Scotia.

villipes VAN DER WULP, *Biologia*, Dipt., II, 269, pl. VII, f. 2.—N. Sonora and Guerrero, Mex.

viridescens DESVOIDY, *Myodaires*, 342 (*Myophora*).—Nova Scotia.

volucris VAN DER WULP, *Biologia*, Dipt., II, 285.—Guerrero, Mex.

xanthopyga VAN DER WULP, *Biologia*, Dipt., II, 271.—Guerrero, Morelos and Orizaba, Mex.

Note.—Brauer and Bergenstamm, in *Zweifl. d. Kaiserl. Mus.*, V, 414, record “*Sarcophaga xanthophyga* S.” from South Carolina. I presume this refers to *S. xanthophora* SCHINER, *Novara*, 313, from South America.

SARCODEXIA.

TOWNSEND, *Jour. Inst. of Jamaica*, I, 105, 1892.

BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, VI, 193, “from the description a *Sarcophaga*.”

sternodontis TOWNSEND, *op. cit.*—Kingston, Jamaica; bred from a *Ceranbycid*. In the same *Journal* for Dec., 1892, it is recorded as bred from the scorpion *Centrurus edwardsii*.

SARCOPHAGULA.

VAN DER WULP, *Tijdschr. v. Ent.*, XXX, 173, 1887; *Biologia*, Dipt., II, 289, 1896, def. and table of Mexican species.

canuta VAN DER WULP, *Biologia*, Dipt., II, 289, pl. VII, f. 12.—Guerrero, etc., in Mexico.

imbecilla VAN DER WULP, *Biologia*, Dipt., II, 289.—Guerrero, etc., in Mexico.

tenuis VAN DER WULP, *Biologia*, Dipt., II, 290.—Guerrero, etc., in Mexico.

ERYTHRANDRA.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 368, 1891; vi, 165, 1893.

picipes BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 368; vi, 165.—Ga.

SARCOPHILODES.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., iv, 164, 1889; vi, 166, 1893.

puella WILLISTON, Trans. Ent. Soc. Lond., 1896, 361, pl. xii, f. 120 bis.—St. Vincent, W. I.

pusilla WIEDEMANN, Auss. Zweifl., ii, 337 (*Tachina*).—W. I.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., iv, 164; v, 369; vi, 166, gen. ref. from type.

? **rufocaudata** BIGOT, Annales, 1888, 269 (*Megerlea*).—Mex.

COQUILLET, Jour. N. Y. Ent. Soc., vii, 1899, 218, gen. ref., with a doubt.

BRAUER, Sitzungsbericht d. K. Akad., cvii, 22, would locate in a new genus near *Tephromyia*, from type.

SAROTHROMYIA.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 365, 1891; vi, 160, 1893, place near *Brachycoma*.

femoralis SCHINER, Novara, 315 (*Sarcophila*).—Brazil.

Lake Worth, Fla.—Johnson, with gen. ref.

JOHNSONIA.

COQUILLET, Proc. Acad. Nat. Sci. Phil., 1895, 316.

elegans COQUILLET, loc. cit.—St. Augustine, Fla.

MUSCIDÆ.

BIGOT, Bull. Soc. Zool. France, 1887, 586, table of all genera.

TOWNSEND, Trans. Amer. Ent. Soc., xix, 1892, table of genera.

GIRSCHNER, Berl. Ent. Zeitsch., xxxviii, 297, 312, 1893, new system of the family; Ent. Nachrichten, xxi, 82-86, 1895; Ill. Woch. f. Ent., i, 12-16, and in a few following numbers, 1896.

VAN DER WULP, Biologia, Dipt., ii, 291, 1896, table of Mexican genera.

BRAUER, Sitzungsbericht d. K. Akad., cviii, 495, 1899, table of genera of Caliphorinæ. In the same paper he remarks that some of Bigot's supposedly North American specimens belong to genera hitherto confined to the eastern hemisphere, "so that I must assume that the locality assigned to many of the species in the Bigot collection is erroneous."

HOUGH, Proc. Acad. Nat. Sci. Phil., 1898, 165-172, gives a valuable article on the anatomy of Muscidæ; in Ent. News, x, 62-66, 1899, he discusses the classification of the family; see also his article in Biol. Bull., i, 21, 1899.

TYREOMMA.

VAN DER WULP, Biologia, Dipt., ii, 292, 1896.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 381, 1891, described as Wulp's genus, from his MS. name on the specimens; vi, 135, 1893, full desc.

muscinum VAN DER WULP, Biologia, Dipt., ii, 293, pl. vii, f. 13.—Guerrero, Mex.

POLLENIA.

DESVOIDY, Myodaires, 412, 1830.

SCHINER, Fauna Austr., I, 585, 1862.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 155, 1899; VI, 179, 1893.

HOUGH, Ent. News, x, 63, 1899; Zool. Bull., II, 283, 1899, figs. chaetotaxy.
glabricula BIGOT, Bull. Soc. Zool. France, 1887, 594 (*Nitellia*).—Cal.

BRAUER, Sitzungsbericht d. K. Akad., CVIII, 521, gen. ref. from type.

obscura BIGOT, Bull. Soc. Zool. France, 1887, 597.—N. A.

HOUGH, Zool. Bull., II, 283, says the desc. is unrecognizable.

BRAUER, Sitzungsbericht d. K. Akad., CVIII, 517, gen. ref. confirmed from type.

✓**rudis** FABRICIUS, Ent. Syst., IV, 314 (*Musca*); 315 (*M. obscura*); Syst. Antl., 287 (*Musca*).—Europe.

FALLÉN, Muscides, 48 (*Musca*).

MEIGEN, Syst. Besch., v, 66, 67 (*Musca rudis, varia, and depressa*).
[Hgh.]

SCHINER, Fauna Austr., I, 586.

DALL, Proc. U. S. N. M., 1883, 635, habits, notes by Riley.—Geneva, N. Y.

LINTNER, 4th N. Y. Rept., 309-314; the Cluster Fly, sometimes gathers in houses in immense numbers in the cooler season.—N. Y.

RILEY and HOWARD, Insect Life, v, 263, notes from correspondence on clustering in houses.

HOUGH, Zool. Bull., II, 283, syn.

HOWARD, Canad. Ent., XXXIII, 44, oc. in Va.; bred from cowdung.

Quebec—Wulp; N. J.—Smith Cat.; Montreal—Chagnon; Ohio—Webster.

vespillo FABRICIUS, Ent. Syst., IV, 318 (*Musca*); Syst. Antl., 292 (id.).—Europe.

MEIGEN, Syst. Besch., v, 65 (id.).

WALKER, List, IV, 907, oc. in Nova Scotia.

SCHINER, Fauna Austr., I, 586.

HOUGH, Biol. Bull., II, 283, fig. 1, confirms oc. in N. A.

CHRYSOMYIA.

DESVOIDY, Myodaires, 444, 1830.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 391, 1891 (*Paralucilia* in part).

GIGLIO-TOS, Ditt. del Mess., IV, 5, 1895, def.

HOUGH, Ent. News, x, 64, 1899, def., and includes the species formerly called *Compsomyia*.

aztequina BIGOT, Annales, 1877, 252.—Mex.

GIGLIO-TOS, Ditt. del Mess., IV, 5, makes a syn. of *macellaria*.

BRAUER, Sitzungsbericht d. K. Akad., CVIII, 523, confirms gen. ref. from type.

cærulescens DESVOIDY, Myodaires, 447, 8.—Carolina.

callipes BIGOT, Annales, 1877, 249 (*Somomyia*).—Mex.

BRAUER, Sitzungsbericht d. K. Akad., CVIII, 524, gen. ref. (*Compsomyia*).

certina WALKER, List, IV, 873 (*Musca*).—Fla.

Probably same as *Pseudopyrellia cornicina*.

decora DESVOIDY, Myodaires, 448.—W. I.

flavigena BIGOT, Annales, 1877, 249 (*Somomyia*).—Mex.

BRAUER, Sitzungsbericht d. K. Akad., CVIII, 522, refers the type to *Compsomyia*.

fulvipes MACQUART, see *macellaria*.

? **hyacinthina** DESVOIDY, Myodaires, 450.—S. A.

MACQUART, Dipt. Exot., II, 3, 148.—N. A. Very doubtful—J. M. A.

HOUGH, Kans. Univ. Quart., IX, 204, syn., etc., under the name of *segmentaria* FABR.; as it is scarcely a North American species, I do not rectify the nomenclature.

l'herminieri DESVOIDY, Myodaires, 446.—Carolina.

macellaria FABRICIUS, Syst. Ent., 776 (*Musca*); Ent. Syst., IV, 319 (id.); Syst. Antl., 292 (id.).—W. I.

WIEDEMANN, Auss. Zw., II, 405 (id.).

OLIVIER, Encycl. Méth., VIII, 405 (id.).

MACQUART, Dipt. Exot., II, 3, 132, pl. XVI (*Calliphora fulvipes*): 147, pl. XVII (*Lucilia*).—Chili; Brazil and Cuba.

WALKER, List, IV, 873-878 (*Musca lyrcea, verena, caruca, gamelia*).—Montevideo and Venezuela.

RONDANI, Ann. Soc. Nat. Modena, III, 3, 9 (*Somomyia fulvipes*).—S. A.

BIGOT, in Sagra's Cuba, 820 (*Lucilia*).—Cuba.

COQUEREL, Ann. Soc. Ent. France, 1858, 173, pl. IV, f. 2 (*Lucilia hominivorax*).

THOMSON, Eugenes Resa, 543, 544 (*Lucilia picicrus* and *taniaria*).—Panama; no locality. [J. M. A. and Giglio-Tos.]

BIGOT, Annales, 1877, 252 (*Somomyia aztequina*).—Mex.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., V, 391 (*Paralucilia fulvipes*).

SCHINER, Novara, 309 (*Calliphora fulvipes*).—Chili.

LYNCH A., An. Soc. Cientif. Argentina, X, 1880, 71.—Argentina.

GIGLIO-TOS, Dipt. del Mess., IV, 5 and 6, syn. and bibliog. (*macellaria* and *fulvipes*).—Mex. [Wulp.]

VAN DER WULP, Tijdschr. v. Ent., XXVII, 38; Biologia, Dipt., II, 297, bibliog., etc.—Mexico, various places.

MORGAN, Bull. 2, sec. ser., La. Ex. Sta., 1890, "The Screw-worm Fly," larvæ infest open sores on mules, etc.; abstract by Riley and Howard, Ins. Life, III, 131.—Miss.

FRANCIS, Bull. Tex. Ex. Sta., 1890, same; also abstracted in Ins. Life, III, 362.—Texas.

MURTFELDT, Ins. Life, IV, 200, "hominivorous habits" of, in St. Louis.

? RILEY and HOWARD, Ins. Life, VI, 56, notes on two cases of larvæ in human ear, supposed to be this species.

WEED, H. E., Canad. Ent., XXIII, 243; natural food of larvæ is decaying flesh.

LUGGER, 2d Rept. Ent. Minn., 158-160, fig., 131, popular account.

MOTTER, Jour. N. Y. Ent. Soc., VI, 223, oc. in human graves.

HERRICK, Bull. 53, Miss. Ex. Sta., 1900, habits and remedies.

HOUGH, Zool. Bull., II, 283, brief desc. and figs.

HOWARD, Proc. Wash. Acad. Sci., II, 562, figs. and habits.

Porto Rico—Roeder; N. J.—Smith Cat.; Jamaica—Johnson; Fla.—Johnson.

plæi DESVOIDY, Myodaires, 448.—W. I.

tibialis DESVOIDY, Myodaires, 446.—San Domingo.

turbida WALKER, Dipt. Saund., 336 (*Musca*).—Jamaica.

Probably *macellaria*—J. M. A.

wheeleri HOUGH, Zool. Bull., II, 284, figs.—Cal.

CHLOROPROCTA.

- VAN DER WULP, *Biologia*, Dipt., II, 296, 1896.
semiviridis VAN DER WULP, loc. cit., pl. VII, f. 16.—N. Yucatan, Mex.

MESEMBRINELLA.

- GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 147, 1893; Ditt. del Mess., IV, II, 1895.
 VAN DER WULP, *Biologia*, Dipt., II, 300, notes, 1896.
 BRAUER, Sitzungsbericht d. K. Akad., CIV, 594, 1897.
 HOUGH, Ent. News, X, 64, 1899.
æneiventris WIEDEMANN, Auss. Zw., II, 376 (*Dexia*).—Brazil.
 VAN DER WULP, *Biologia*, Dipt., II, 301, pl. VII, f. 19.—N. Yucatan, Mex.
bicolor GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 147; Ditt. del Mess., IV, II, f. 1.—Mexico.
 VAN DER WULP, *Biologia*, Dipt., II, 301, pl. VII, f. 18, oc. and notes.—Costa Rica.
 ? *secors* WALKER, Trans. Ent. Soc., n. ser., V, 311 (*Calliphora*).—Mex.
 VAN DER WULP, *Biologia*, Dipt., II, 311, doubtful gen. ref.
xanthorhina BIGOT, Bull. Soc. Ent. France, 1887, clxxii (*Somomyia*).—Mex.
 BRAUER, Sitzungsbericht d. K. Akad., CVIII, 526, refers type here, and adds "*? chrysorrhæa* MCQ."

CYNOMYIA.

- DESVOIDY, *Myodaires*, 363, 1830.
 SCHINER, *Fauna Austr.*, I, 574, 1862.
 BRAUER and BERGENSTAMM, *Zweifl. d. Kaiserl. Mus.*, IV, 122, 1889; VI, 163, 1893.
 HOUGH, Ent. News, IX, 5, 1898; X, 64, 1899.
alpina ZETTERSTEDT, Ins. Lapp., 651; Dipt. Scand., IV, 1304.—N. Europe.
 GERSTÆCKER, *Die Zweite Nordpolfahrt*, etc., oc. in East Greenland.
americana HOUGH, see *cadaverina*.
cadaverina DESVOIDY, *Myodaires*, 365, 436, 437, 438 (*Cynomyia cadaverina*, *Calliphora myoides*, *aurulans*, and *compressa*).—Carolina; Philadelphia; Carolina and Nova Scotia; Carolina. [Hough.]
 KIRBY, N. Amer. Zool. Ins., 317 (*Calliphora mortisæqua*).—N. A., lat. 65°. [Hough.]
 HOUGH, Ent. News., IX, 105, figs. (*amricana*).—Canada, Mass., Penn., Ga., La., Ind., Col., Ill., S. D. Synonymy acknowledged in Zool. Bull., II, 285.
 COQUILLET, Proc. Wash. Acad. Sci., II, 440, oc. in Alaska.
 HOWARD, Proc. Wash. Acad. Sci., II, 567, notes on habits.
 N. J.—Smith Cat.
elongata HOUGH, Ent. News, IX, 106, figs.—S. D., Wyo.
flavipalpis MACQUART, Dipt. Exot., Suppl., IV, 2, 236.—"America, Terre Nueve."
 VAN DER WULP, Tijdschr. v. Ent., XXVI, sep. 37, oc. in Quebec and "Fernambuc."
 White Mts., N. H.—Slosson.
hirta HOUGH, Ent. News, IX, 166, figs.—St. Paul Id., Alaska.
 COQUILLET, Proc. Wash. Acad. Sci., II, 440, oc. in Alaska (as *mortisæqua* KEY.).
mortuorum LINNÉ, *Fauna Suec.*, 2d edit., 452 (*Musca*).—Europe; "habitat in cadaveribus et putridis."

- FABRICIUS, Spec. Ins., II, 439 (*M. vomitoria* and *mortuorum*); Ent. Syst., IV, 318 (id.); Syst. Antl., 290 (id.).—Europe.
 DEGEER, Mém. Hist. Nat. Ins., VI, 30 (*M. chrysoccephala*).
 FALLÉN, Muscides, 45 (*Musca*).
 LATREILLE, Gen. Crust., IV, 345 (*Sarcophaga*).
 MEIGEN, Syst. Besch., V, 16 (id.).
 SCHINER, Fauna Austr., I, 575.
 OSTEN SACKEN, Berl. Ent. Zeitsch., XXXI, 1887, 20, abstract of an interesting paper in Russian by Portchinsky on the larval habits, etc.
 COQUILLETT, Dipt. of Commander Ids., 344, oc. on Bering Id.
 HENDEL, Wien. Ent. Zeit., XX, 32, notes.

CALLIPHORA.

- DESVOIDY, Myodaires, 433, 1830.
 SCHINER, Fauna Austr., I, 583, 1862.
 BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 157, 1889; VI, 180, 1893.
 VAN DER WULP, Biologia, Dipt., II, 294, table of Mexican species, 1896.
 HOUGH, Ent. News, X, 65, 1899; Zool. Bull., II, 285, 1899, table of species of the United States.
aurulans DESVOIDY, see *Cynomyia cadaverina*.
coloradensis HOUGH, Zool. Bull., II, 286.—Col.
compressa DESVOIDY, see *Cynomyia cadaverina*.
erythrocephala MEIGEN, Syst. Besch., V, 62 (*Musca*).—Europe.
 WIEDEMANN, Auss. Zweifl., II, 395 (id.).—Cape of Good Hope and Egypt.
 MACQUART, Hist. Nat. Dipt., II, 262 (*vomitoria*).
 ? O. FABRICIUS, Fauna Grœnl., 207 (*Volucella vomitoria*;—Schiödte, quoted by Osten Sacken).—Greenland.
 DESVOIDY, Myodaires, 435 (*vicina*).—Philadelphia. [Hgh.]
 WALKER, List, IV, 894 (*lilaca*).—Martin Falls, Canada. [Hgh.]
 RILEY, PACKARD, and THOMAS, 1st Rept. U. S. Ent. Comm., 324, parasitic on Rocky Mountain locust.
 OSTEN SACKEN, Berl. Ent. Zeitsch., XXXI, 1887, 19, abstract of a very interesting Russian article by Portchinsky on the larval habits, egg-laying, etc.
 VAN DER WULP, Biologia, Dipt., II, 295, oc. and bibliog.—Mexico.
 COQUILLETT, Dipt. of the Commander Ids., 344, oc. on Copper Id., Alaska.
 HOWARD, Proc. Wash. Acad. Sci., II, 564, fig. and habits; the common "Blow-Fly."
 Fla.—Johnson; White Mts., N. H.—Slosson; N. J.—Smith Cat.; Montreal—Chagnon.
femorata WALKER, Trans. Ent. Soc., n. ser., V, 310.—Mex.
fulvibarbis FITCH, Trans. N. Y. Ag. Soc., 1849, 803, popular account.—N. Y.
grœnlandica ZETTERSTEDT, see *Phormia terræ-novæ*.
ilerda WALKER, List, IV, 895 (*Melinda*).—Martin Falls, Canada.
latifrons HOUGH, Zool. Bull., II, 286, figs.—Wash., Ida., S. Cal., Mex.
melanaria VAN DER WULP, Biologia, Dipt., II, 295, pl. VII, f. 15.—Guerrero, Mex.
mortisequa KIRBY, see *Cynomyia cadaverina*.
myoidea DESVOIDY, Myodaires, see *Cynomyia cadaverina*.
nigrina BIGOT, Annales, 1877, 247 (*Somomyia*).—Ill.
 BRAUER, Sitzungsbericht d. K. Akad., CVIII, 523, refers type to this genus.
præpes GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 147; Ditt. del Mess., IV, 1.—Mex.

præscia GIGLIO-TOS, Ditt. del Mess., iv, 3 (*Lucilia*).—Mexico.

VAN DER WULP, Biologia, Dipt., ii, 294, notes and oc.—Orizaba and Guerrero, Mex.; Costa Rica.

? **punctata** DESVOIDY, Myodaires, 428 (*Ormia*).—W. I.

MACQUART, Hist. Nat. Dipt., ii, 250 (*Ochromyia*).—Jamaica.

Porto Rico—Roeder (*Ormia*).

I refer here on the strength of Macq., Dipt. Exot., ii, 3, 132.

rectinervis BIGOT, Bull. Soc. Ent. France, 1887, clxxiii (*Somomyia*).—Rocky Mts.

BRÄUER, Sitzungsbericht d. K. Akad., cviii, 521, gen. ref., from type.

? **rutilans** FABRICIUS, Spec. Ins., ii, 436 (*Musca*).—The locality given by Fabricius is "in *America insulis*"—that is, the West Indies; but Wiedemann mentions South America. Probably extra-limital.

secors WALKER, see *Mesembrinella*.

semiatria SCHINER, Novara, 308.—Colombia.

ROEDER, Stett. Ent. Zeit., 1886, 269.—Mexico.

GIGLIO-TOS, Ditt. del Mess., iv, 1.—Mex.

VAN DER WULP, Biologia, Dipt., ii, 295, pl. vii, f. 14.—Guerrero and Durango, Mexico; Costa Rica.

splendida MACQUART, Dipt. Exot., Suppl., i, 196.—Texas.

? **stygia** FABRICIUS, Spec. Ins., ii, 438, etc.

OSTEN SACKEN, Cat., note 276, shows that this is probably from New Zealand.

viridescens DESVOIDY, Myodaires, 537.—Carolina.

MEIGEN, Syst. Besch., vii, 301 (*Musca violacea*).—Europe.

MACQUART, Dipt. Exot., Suppl., iv, 244 (*terra-novæ*).—Newfoundland.

HOUGH, Zool. Bull., ii, 286, syn. and notes.

N. J.—Smith Cat.; Alaska—Coquillett; Axton, N. Y.—M. and H.

? **vomitaria** LINNÉ, Fauna Suec., 2d edit., 452 (*Musca*).—Sweden; "habitat in cadaveribus et in carnibus calori expositis." The common blow-fly.

FABRICIUS, Syst. Antl., 285 (*M. carnivora*).—Germany and probably Philadelphia.

DEGEER, Mém. Hist. Nat. Ins., vi, 29 (*M. carnaria cærulea*).

FALLÉN, Muscides, 47 (*Musca*).

MEIGEN, Syst. Besch., v, 60, desc. and habits.

MACQUART, Hist. Nat. Dipt., ii, 262 (*fulvibarbis*).

SCHINER, Fauna Austr., i, 584.

ESCHHOLZ, Entomographien, i, 113 (*Musca obsæna*). [Hgh.]

FITCH, Trans. N. Y. Agl. Soc., 1849, ix, 802, pop. acct.

OSTEN SACKEN, Berl. Ent. Zeitsch., 1887, xxxi, 17, abstract of an important Russian paper on the habits by Portschinsky.

HUGO SUMMA, M.D., St. Louis Med. and Surg. Journal, 1889, May, records nasal myiasis due to this species; abstract by Townsend, Ins. Life, iii, 39.

LUGGER, 2d Minn. Rept., 1896, 162, pl. xii, f. 135.

N. J.—Smith Cat.; Beulah, N. M.—Skinner; White Mts., N. H.—Slosson; Montreal—Chagnon; Alaska—Coquillett.

xanthorhina BIGOT, see *Mesembrinella*.

LUCILIA.

DESVOIDY, Myodaires, 452, 1830.

SCHINER, Fauna Austr., i, 589, 1862.

HOUGH, Ent. News, x, 66, 1899; Zool. Bull., ii, 287, table of species, 1899.

BRÄUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 157, 1889; VI, 180, 1893; also as *Paralucilia*, V, 391, 1891; VI, 180, 1893.

For a supposed species of *Lucilia* infesting the turtle, see RILEY and HOWARD, Insect Life, V, 269; also TRUE, Science, IV, 511, and PACKARD, Amer. Naturalist, XVI, 598.

argentifera BIGOT, see *Pseudopyrellia cornicina*.

brunnicornis MACQUART, see *sericata*.

brunnicosa DESVOIDY, see *sylvarum*.

cæruleiviridis MACQUART, see *sericata*.

✓ *cæsar* LINNÉ, Fauna Suec., 451 (*Musca*).—Sweden; "habitat ubique in cadaveribus, carnibus et putridis." A common and widespread carrion fly.

FABRICIUS, Syst. Antl., 289 (id.).

MEIGEN, Syst. Besch., V, 51 (id.).

DESVOIDY, Myodaires, 452, 453 (*cæsar* and *lepida*).—Philadelphia; France and Nova Scotia.

MACQUART, Dipt. Exot., II, 2, 299, pl. XVIII, f. 5 (*parensis*); Suppl. III, 57 (*fraterna* and *consobrina*).—Para; N. A.; N. A.

FITCH, Trans. N. Y. State Agr. Soc., 1849, 801, popular account of "sheep maggots."

WALKER, List, IV, 879, oc. in Mass. and Martin Falls, Canada.

SCHINER, Fauna Austr., I, 589.

RONDANI, Esame Ditt. Brazil, sep. 17 (*Lucilia princeps*).—Brazil.

OSTEN SACKEN, Berl. Ent. Zeitsch., XXXI, 1887, 20, abstract of Portchinsky's Russian work on habits of larvæ, etc.—valuable.

VAN DER WULP, Tijdschr. v. Ent., XXVI, 38; Biologia, Dipt., II, 297, bibliog., etc.—Durango, Mex.; Costa Rica.

TOWNSEND, Psyche, June, 1893, records supposed rearing from *Leucania unipuncta*.

GIGLIO-TOS, Ditt. del Mess., IV, 2, bibliog. and notes.—Orizaba, etc., Mex.

MOTTER, Jour. N. Y. Ent. Soc., VI, 223, oc. in human graves.

HOUGH, Zool. Bull., II, 288, notes and synonymy; Kans. Univ. Quart., IX, 203, oc. in S. A. and syn.

HOWARD, Proc. Wash. Acad. Sci., II, 563, figs. and habits; reared from human excrement.

MORGAN, Bull. 30, n. ser., Div. of Ent., 25, 1901, reared from *Melanoplus differentialis*.—Miss.

Common everywhere in North America, within the inhabited limits.

Note.—The species in RILEY, Rept. U. S. Entomol., 1890, 249, should have been *Pseudopyrellia cornicina*.

callipes BIGOT, see *Chrysomyia*.

carolinensis DESVOIDY, see *Pseudopyrellia cornicina*.

cluvia WALKER, see *ruficornis*.

compar DESVOIDY, see *Pseudopyrellia cornicina*.

cornicina FABRICIUS, see *Pseudopyrellia*.

flavigena BIGOT, see *Chrysomyia*.

fulvifacies DESVOIDY, see *Phormia regina*.

fulvinota BIGOT, Annales, 1877, 251.—Mex.

BRÄUER, Sitzungsbericht d. K. Akad., CVIII, 524, refers type to *Paralucilia*.

heræa WALKER, see *Pseudopyrellia cornicina*.

insularis WALKER, see *ruficornis*.

iridicolor BIGOT, Bull. Soc. Ent. France, 1887, 599 (*Somomyia*).—Cuba.

macellaria FABRICIUS, see *Chrysomyia*.

meridensis MACQUART, see *Pyrellia*.

mexicana MACQUART, Dipt. Exot., II, 3, 143, pl. XVIII, f. 7.—Mexico.

mollis WALKER, List, IV, 892 (*Phormia*).—Martin Falls, Canada.

muralis WALKER, List, IV, 888.—Martin Falls, Canada.

mutabilis BIGOT, Annales, 1887, 248 (*Somomyia*).—Mex.

BRAUER, Sitzungsbericht d. K. Akad., CVIII, 523, confirms Osten Sacken in referring here,—examined type.

nigriceps MACQUART, Dipt. Exot., II, 3, 143.—Mex.

nigrina BIGOT, see *Calliphora*.

nobilis MEIGEN, Syst. Besch., V, 56 (*Musca*).—Europe.

SCHINER, Fauna Austr., I, 590.

MEINERT, Saertryk af Ent. Meddelelser, I, 3 Heft, 1888, on larva in man's ear; transl. of, by Linell, in Ins. Life, V, 36.

HOUGH, Ent. News, X, 66, oc. in the United States.

pallidibasis BIGOT, Annales, 1877, 247.—Mex.

GIGLIO-TOS, Ditt. del Mess., IV, 4, notes.—Tuxpango, Mex.

BRAUER, Sitzungsbericht d. K. Akad., CVIII, 524, confirms gen. ref. from type.

philadelphica DESVOIDY, see *Phormia regina*.

piciprus THOMSON, see *Chrysomyia macellaria*.

pilatei HOUGH, Zool. Bull., II, 287, fig.—Tifton, Ga.

præscia GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 147; Ditt. del Mess., IV, 3.—Tampico, Mex.

proxima WALKER, Dipt. Saund., 341 (*Musca*).—Cal.

GIGLIO-TOS, Ditt. del Mess., IV, 4, oc. in Mexico.

pueblensis BIGOT, Annales, 1877, 250 (*Somomyia*).—Mex.

putrida FABRICIUS, Ent. Syst., IV, 316 (*Musca*); Syst. Antl., 228 (id.).—S. A.

WIEDEMANN, Auss. Zweifl., II, 404.—S. A.

JÆNNICKE, Neue Exot. Dipt., 4, oc. in Cuba.

quieta GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 147; Ditt. del Mess., IV, 4.—Mex.

regina MEIGEN, see *Phormia*.

ruficornis MACQUART, Dipt. Exot., Suppl. I, 198.—S. A.

WALKER, List, IV, 885 (*Musca cluvia*); Dipt. Saund., 340 (*Musca insularis*).—Both W. I.

ROEDER, Stett. Ent. Zeit., 1885, 347, desc.—Porto Rico.

WILLISTON, Trans. Ent. Soc. Lond., 1896, 367, syn. and oc.—St. Vincent, W. I.

rufipalpis JÆNNICKE, Neue Exot. Dipt., 67.—Ill.

sayi JÆNNICKE, see *sericata*.

semiviolacea BIGOT, Annales, 1877, 46 (*Somomyia*).—Porto Rico.

BRAUER, Sitzungsbericht d. K. Akad., CVIII, 523, gen. ref. from type.

sericata MEIGEN, Syst. Besch., V, 53 and 55 (*Musca sericata* and *cærulescens*).—Europe.

MACQUART, Dipt. Exot., Suppl. V, 113 (*cæruleiviridis*).—Baltimore.

? MACQUART, Dipt. Exot., II, 3, 142 (*brunnicornis*).—Mexico. [J. M. A.]

SCHINER, Fauna Austr., I, 590.

JÆNNICKE, Neue Exot. Dipt., 67 (*sayi*).—Ill.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 210, note on type of *sayi*.

BRAUER, Sitzungsbericht d. K. Akad., CVIII, 522, note on type of *cæruleiviridis*.

HOUGH, Zool. Bull., II, 288, syn. of *cæruleiviridis* and *sayi*.

N. J.—Smith Cat.; Fla.—Johnson.

soulouquina BIGOT, Annales, 1877, 47 (*Somomyia*).—Hayti.

BRAUER, Sitzungsbericht d. K. Akad., cviii, 523, gen. ref. from type.

stigmatalis THOMSON, see *Phormia regina*.

surrepens WALKER, Trans. Ent. Soc., n. ser., v, 312.—Mex.

sylyphida BIGOT, Annales, 1877, 45 (*Somomyia*).—New Orleans.

BRAUER, Sitzungsber. d. Kaiserl. Akad., cviii, 523, gen. ref. from type.

sylvarum MEIGEN, Syst. Besch., v, 53 (*Musca*).—Europe.

? DESVOIDY, Myodaires, 459 (*brunica*).—N. A. [Hgh., with a doubt.]

SCHINER, Fauna Austr., i, 591.

HOUGH, Biol. Bull., ii, 287, oc. in N. A.; Zool. Bull., ii, 288, syn.—Pa., S. D.

N. J.—Smith Cat.; Ida.—J. M. A.

terræ-novæ DESVOIDY, see *Phormia*.

terræ-novæ MACQUART, Dipt. Exot., Suppl. iv, 2, 251, pl. xxiii, f. 1.—Newfoundland.

violacea MACQUART, Dipt. Exot., Suppl. ii, 83.—Mexico.

BRAUER, Sitzungsber. d. K. Akad., cviii, 522, refers to *Paralucilia*.

PHORMIA.

DESVOIDY, Myodaires, 465, 1830.

HOUGH, Ent. News, x, 66, 1899, defined.

✓**regina** MEIGEN, Syst. Besch., v, 58 (*Musca*).—Europe.

DESVOIDY, Myodaires, 466 (*philadelphica*); 467 (*fulvifacies*).—Philadelphia.

MACQUART, Dipt. Exot., Suppl. iv, 251, pl. xxiii, f. 1 (*Lucilia terræ-novæ*).—Newfoundland.

? WALKER, List, iv, 892 (*mollis*).—Martin Falls, Canada.

SCHINER, Fauna Austr., i, 589 (*Lucilia*).

JENNICKE, Neue Exot. Dipt., 67 (*Lucilia rufipalpis*).—Ill.

THOMSON, Eugen. Resa, 544 (*Lucilia stigmatalis*).—Cal.

HOUGH, Zool. Bull., ii, 288, preceding synonymy; he also adds Bigot's *Somomyia rectinervis*, *rufigena*, and *rupicola*, but Brauer's examination of the types does not seem to bear this out (Sitzungsber. d. Kaiserl. Akad., cviii, 521, et seq.).

N. J.—Smith Cat.; Montreal—Chagnon; Beulah, N. M.—Skinner.

terræ-novæ DESVOIDY, Myodaires, 467.—Newfoundland.

ZETTERSTEDT, Ins. Lapp., 657 (*Musca granlandica*); Dipt. Scand., iv, 1330 (id.).—Greenland.

STEEGER, Grœnl. Antl., 363 (*Calliphora granlandica* ZETT.).—Greenland.

GERSTÆCKER, Die Zweite Nordpohlfahrt, etc. (id.).

HOLMGREN, Ins. Nordgrœnl., 101 (id.).

RONDANI, Dipt. Ital. Prod., v, 196 (*Pollenia granlandica*).

HOUGH, Zool. Bull., ii, 289, syn. and desc.—N. A., common.

HOWARD, Proc. Wash. Acad. Sci., ii, 568, fig. and note on habits.

RIEDEL, Allgem. Zeitsch. f. Ent., vi, 152, oc. in Pomerania, common the whole season (*Calliphora granlandica*).

HENDEL, Wien. Ent. Zeit., xx, 30, doubtfully refers to *Avihospita*,—that is, to *Protocalliphora*.

N. J.—Smith Cat.; Alaska—Coquillett.

PROTOCALLIPHORA.

HOUGH, Ent. News, x, 66, 1899.

HENDEL, Wien. Ent. Zeit., xx, 29, 1901 (*Avihospita*); syn. by Aldrich, op. cit., 68.

azurea FALLÉN, Acta Holmiæ, 1816, 245; Dipt. Suec., Muscides, 46 (both *Musca*).—Europe.

MEIGEN, Syst. Besch., v, 63 (id.).

DUFOUR, Annales Soc. Ent. France, 1845, III, pl. 3, reared from larvæ on nestlings of sparrow.

ROSSI, Verzeichniss d. Zweifl. Ins. Cæsterr., Wien, 1848, mentions Schef-fer rearing the species from larvæ on young larks.

SCHINER, Fauna Austr., I, 585 (*Calliphora*).

RONDANI, Dipt. Ital. Prod., v, 197 (*Pollenia*).

HOUGH, Zool. Bull., II, 289, fig.; very rare in N. A.

HENDEL, Wien. Ent. Zeit., XX, 29, references to parasitism of the species on young birds (*Azihospita*, n. gen.).

chrysorrhæa MEIGEN, Syst. Besch., v, 60 (*Musca*).—Europe.

SCHINER, Fauna Austr., I, 585 (*Calliphora*).

HOUGH, Zool. Bull., II, 289, very rare in N. A.

HENDEL, Wien. Ent. Zeit., XX, 29, thinks Meigen's desc. indicates a different species from Schiner's (*Azihospita*).

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 546, reared from young of swallow.

SOMOMYIA.

RONDANI, Dipt. Ital. Prod., IV, 9, 1861, change of name; op. cit., I, 90, 1856 (*Mya*, preoc.).

Note.—This genus, as founded, and as used by Bigot, seems to have had no definite meaning.

flavigena BIGOT, see *Chrysomyia*.

iridicolor BIGOT, see *Lucilia*.

rectinervis BIGOT, see *Calliphora*.

rufigena BIGOT, Bull. Soc. Ent. France, 1887, clxxiii.—Rocky Mts.

BRAUER, Sitzungsber. d. K. Akad., CVIII, 521, says the type will form a new genus; oc in Ga.

rupicola BIGOT, Bull. Soc. Zool. France, XII, 603.—Rocky Mts.

HOUGH, Zool. Bull., II, 289, makes a syn. of *Phormia regina*, but I think this is doubtful.

semiviolacea BIGOT, see *Lucilia*.

soulouquina BIGOT, see *Lucilia*.

sylphida BIGOT, see *Lucilia*.

xanthorhina BIGOT, see *Calliphora*.

PSEUDOPYRELLIA.

GIRSCHNER, Berl. ent. Zeitsch., XXXVIII, 306, 1893.

DESVOIDY, Dipt. Env. Paris, II, 799, 1863 (*Euphoria*, preoc.).

HOUGH, Biol. Bull., I, 26, 1899.

✓**cornicina** FABRICIUS, Spec. Ins., II, 438 (*Musca*); Ent. Syst., IV, 317 (id.); Syst. Antl., 289 (id.).—Europe.

FALLÉN, Muscides, 47 (*Musca*).

MEIGEN, Syst. Besch., v, 57 (*M. casarion*).

DESVOIDY, Myodaires, 457 (*carolinensis* and *compar*).—Carolina and Philadelphia.

ZETTERSTEDT, Dipt. Scand., IV, 1316 (*Lucilia*).

SCHINER, Fauna Austr., I, 590 (id.).

VAN DER WULP, Tijdschr. v. Ent., IV, 80, oc. in N. A. (*Lucilia*); loc. cit., XXVI, 39 (id.); Biologia, Dipt., II, 289, oc. in Mexico and syn.

BIGOT, Annales, 1877, 251 (*Somomyia argentifera*).—Mexico.

RILEY, Rept. U. S. Ent. for 1890, 248, pl. vii (*Lucilia cesar*). [Howard.]

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 420, oc. of *carolinensis* in Mexico.

HOUGH, Biol. Bull., 1, 27, figs. and syn.

HOWARD, Proc. Wash. Acad. Sci., 11, 579, figs. early stages; larvæ breed abundantly in cowdung.

BRUES, Psyche, June, 1902, 354, the brilliant blue larvæ in cowdung.—Tex.

Common and widespread in the United States—J. M. A.

PYRELLIA.

DESVOIDY, Myodaires, 462, 1830.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., iv, 157, 1889; vi, 181, 1893.

HOUGH, Biol. Bull., 1, 26, 1899; Kans. Univ. Quart., ix, 218, 1900, distinguishes this from *Morellia*.

basalis WALKER, see *Morellia*.

? *cadaverina* LINNÉ, Fauna Suec., 2d edit., 451 (*Musca*).—Europe; "habitat in cadaveribus."

MEIGEN, Syst. Besch., v, 59 (*Musca*).

SCHINER, Fauna Austr., 1, 593.

FITCH, Survey, etc., 801, oc. in N. A.

HOUGH, Biol. Bull., 1, 27, not seen, doubtful if it occurs in N. A.

cadaverum KIRBY, Fauna Bor. Amer., Ins., 316 (*Musca*).—Arctic America.

Canad. Ent., xiii, 168, quotes orig. desc.

centralis LOEW, see *Morellia violacea*.

cyanicolor ZETTERSTEDT, Dipt. Scand., iv, 1323.—Europe.

LOEW, Cent., viii, 63 (*setosa*).—Ill.

? WALKER, Dipt. Saund., 347 (*Musca occidentis*).—U. S. [Hgh., with a doubt.]

HOUGH, Biol. Bull., 1, 27, figs. and syn.; compared Loew's types with European specimens.

flora BIGOT, Annales, 1878, 36.—Hayti.

BRAUER, Sitzungsber. d. K. Akad., cviii, 527, gen. ref. confirmed.

frontalis THOMSON, Eugen. Resa, 545.—Cal.

iris BIGOT, Annales, 1878, 36.—Mex.

HOUGH, Biol. Bull., 1, 30, notes; Kans. Univ. Quart., ix, 216. The references of Hough are not confirmed by Brauer.

BRAUER, Sitzungsber. d. K. Akad., cviii, 527, confirms gen. ref. from type.

meridensis MACQUART, Dipt. Exot., Suppl. 1, 199 (*Lucilia*).—Merida, Yucatan.

BRAUER, Sitzungsber. d. K. Akad., cviii, 522, gen. ref. from type.

obscuripes BIGOT, Bull. Soc. Zool. France, 1887, xii, 616.—Mex.

BRAUER, Sitzungsber. d. K. Akad., cviii, 520, type is unrecognizable.

occidentis WALKER, see *cyanicolor*.

ochricornis WIEDEMANN, Auss. Zweifl., 11, 408 (*Musca*).—Brazil.

MACQUART, Dipt. Exot., 11, 3, 149, pl. xx, f. 5.—Cuba.

BIGOT, in Sagra's Cuba, 821.—Cuba.

HOWARD, Proc. Wash. Acad. Sci., 11, 580, note on habits.

Porto Rico—Roeder and Coquillett.

ochrifacies DESVOIDY, see *Morellia*.

- sarcophagina** VAN DER WULP, *Biologia*, Dipt., II, 302, pl. VII, f. 20 (*Morellia*).—Vera Cruz and Tabasco, Mex.
 HOUGH, *Kans. Univ. Quart.*, IX, 218, oc. in Corumba, Brazil.
scapulata BIGOT, *Annales*, 1878, 35 and 36 (*scapulata* and *flora*).—Mexico and Hayti.
 GIGLIO-TOS, *Ditt. del Mess.*, IV, 7, oc. and note.—Mexico.
 VAN DER WULP, *Biologia*, Dipt., II, 300, oc. and notes.—Orizaba, etc., Mex.
 HOUGH, *Biol. Bull.*, I, 31, figs., desc. and syn. (*Morellia*).
 BRAUER, *Sitzungsber. K. Akad.*, CVIII, 527, confirms gen. ref. from types.
scordalus WALKER, *Trans. Ent. Soc.*, n. ser., V, 313.—Mex.
specialis WALKER, see *Morellia violacea*.
suspica WALKER, see *Morellia bipuncta*.
violacea FABRICIUS, see *Morellia*.

MORELLIA.

- DESVOIDY, *Myodaires*, 405, 1830.
 VAN DER WULP, *Biologia*, Dipt., II, 301, 1896.
 HOUGH, *Biol. Bull.*, I, 26, 1899; *Kans. Univ. Quart.*, IX, 218, 1900, distinguishes between this and *Pyrellia*.
basalis WALKER, *Dipt. Saund.*, 347 (*Musca*).—Jamaica.
 HOUGH, *Biol. Bull.*, I, 30, makes a syn. of *Morellia violacea*; later, in *Kans. Univ. Quart.*, IX, 212, 1900, he inclines toward making it a syn. of *Morellia ochrifacies* ROND.
bipuncta WIEDEMANN, *Auss. Zweifl.*, II, 417 (*Musca*).—Brazil.
 ? WALKER, *Trans. Ent. Soc.*, n. ser., V, 312 (*Pyrellia suspica*).—Mex. [Hough, with a doubt.]
 VAN DER WULP, *Biologia*, Dipt., II, 299 (*Pyrellia suspica*).—Guerrero and Orizaba, Mex.
 HOUGH, *Kans. Univ. Quart.*, IX, 216, notes.
callimera BIGOT, *Bull. Soc. Zool. France*, 1887, 615 (*Cyrtoneura*).—Mexico.
 GIGLIO-TOS, *Ditt. del Mess.*, IV, 12 (id.).—Mex.
 VAN DER WULP, *Biologia*, Dipt., II, 302, oc. and notes.—Guerrero, Mex.
 BRAUER, *Sitzungsber. K. Akad.*, CVIII, 526, refers type to *Cyrtoneura*.
fulvipes BIGOT, *Bull. Soc. Zool. France*, 1887, 613 (*Cyrtoneura*).—Mex.
 Gen. ref. by Wulp, in *Biologia*, Dipt., II, 311.
 BRAUER, *Sitzungsber. K. Akad.*, CVIII, 526, refers type to *Cyrtoneura*.
micans MACQUART, *Dipt. Exot.*, Suppl. V, 116 (*Cyrtoneura*).—Baltimore.
 BRAUER, *Sitzungsber. K. Akad.*, CVIII, 526, refers the type in Bigot's coll. to *Cyrtoneura*.
 HOUGH, *Biol. Bull.*, I, 29, figs. and pt. desc.; occurs all over the United States.
 HOWARD, *Proc. Wash. Acad. Sci.*, II, 573, figs. and habits; breeds in human excrement; *Canad. Ent.*, XXXIII, 44, oc. in Va., breeds in cow-dung.
 N. J.—Smith Cat.; Montreal—Chagnon; Beulah, N. M.—Skinner; White Mts., N. H.—Slosson.
nigriceps BIGOT, see *Muscina*.
ochrifacies RONDANI, *Nuov. Ann. Sci. Nat. Bologna*, 1850, sep. 15.—Isle St. Sebastian.
 DESVOIDY, *Myodaires*, 463 (*Pyrellia violacea*, preoc.).
 ? WALKER, *Dipt. Saund.*, 347 (*Pyrellia basalis*).—Jamaica.
 GIGLIO-TOS, *Ditt. del Mess.*, IV, 7, oc. in Mex. and notes.

- HOUGH, Kans. Univ. Quart., IX, 212, syn. of Walker, with a doubt, etc.
sarcophagina VAN DER WULP, see *Pyrellia*.
scapulata BIGOT, see *Pyrellia*.
violacea FABRICIUS, Syst. Antl., 288 (*Musca*).—S. A.
 WIEDEMANN, Auss. Zweifl., II, 409 (*Musca*).—S. A.
 MACQUART, Dipt. Exot., Suppl. IV, 252, pl. XXIII, f. 7 (*Pyrellia maculipennata*); Suppl. I, 199, pl. XVII, f. 6 (*Pyrellia maculipennis*).—Brazil; Columbia and Brazil.
 WALKER, Trans. Ent. Soc., n. ser., v, 212 (*Pyrellia specialis*).—Mex.
 LOEW, Cent., VIII, 62 (*Pyrellia centralis*).—Cuba.
 SCHINER, Novara, 304.
 VAN DER WULP, Tijdschr. v. Ent., XXVI, 39 (*Cyrtoneura*); Biologia, Dipt., II, 311, bibliog., etc.—Guadeloupe.
 HOUGH, Biol. Bull., I, 30, syn. and figs.; Kans. Univ. Quart., IX, 215, revised synonymy and full discussion.
 Porto Rico—Roeder.

MESEMBRINA.

- MEIGEN, Syst. Besch., v, 10, 1826.
 SCHINER, Fauna Austr., I, 582, 1862.
 BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 157, 1889; v, 391, 1891; VI, 180, 1893.
 HOUGH, Biol. Bull., I, 26, 1899.
anomala JÄNNICKE, see *Spilogaster*.
pallida SAY, Jour. Acad. Sci. Phil., VI, 175; Compl. Works, II, 366.—Ind.
 Unrecognizable—Hough.
resplendens WAHLBERG, K. Vetensk. Akad. Förh., 1844, 66.—Europe.
 ? DESVOIDY, Myodaires, 401 (*latreillei*).—Nova Scotia. [Hough, with a doubt.]
 LOEW, in Silliman's Journal, oc. in N. A.
 HOUGH, Biol. Bull., I, 28, notes.
 ? COQUILLET, Proc. Wash. Acad. Sci., II, 441, oc. in Alaska and Penn.; ident. with a doubt, as *latreillei*.
 White Mts., N. H.—Slosson.

MUSCA.

- LINNÉ, Syst. Nat., 10th ed., No. 222, 1758; Fauna Suec., 439, 1761.
 MEIGEN, Syst. Besch., v, 49, 1826.
 DESVOIDY, Myodaires, 394, 1830.
 SCHINER, Fauna Austr., I, 593, 1862.
 BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 156, 1889; VI, 179, 1893.
 HOUGH, Biol. Bull., I, 26, 1899.
atrifrons BIGOT, Bull. Soc. Zool. France, 1887, 607.—Cuba, Mexico.
 BRAUER, Sitzungsber. K. Akad., CVIII, 527, confirms gen. ref. from type.
cadaverum KIRBY, see *Lucilia*.
cloacaris O. FABRICIUS, Fauna Grœnl., 204.—Greenland.
 SCHIÖTTE, Berl. Ent. Zeitsch., 1859, 153, may be *Scatophaga litorea* FALL.
 LUNDBECK, Dipt. Grœnl., II, 310, notes (it is evidently unrecognizable).
corvina FABRICIUS, Spec. Ins., II, 440; Ent. Syst., IV, 320; Syst. Antl., 294.—Europe.
 DEGEER, Hist. Nat. Ins., VI, 41 (*autumnalis*). [Fabr.]
 SCHRANK, Enum. Ins. Austr., 931 (*tau*).

PANZER, Fauna Germ., LX, 13 (*nigripes*); CV, 13 (*ludifica*).

MEIGEN, Syst. Besch., v, 69.

SCHINER, Fauna Austr., I, 594.

WALKER, List, IV, 900, oc. in Nova Scotia.

HOUGH, Biol. Bull., I, 28, notes; not seen.

✓ **domestica** LINNÉ, Syst. Nat., 10th ed., No. 54 under *Musca*, 1758; Fauna Suec., 453.—Europe; "larvæ in fimo equino." The House-fly.

FABRICIUS, Syst. Antl., 287.

MEIGEN, Syst. Besch., v, 67.

MACQUART, Dipt. Exot., II, 3, 153, 154 (*basilaris* and *analís*); Suppl. IV, 253 (*vicina*).—Brazil; Chili; America.

RONDANI, Esame ditt. Brasil., 18, 29, 1848 (*consanguinea*).—Brazil.

FITCH, Trans. N. Y. Agr. Soc., 1849, 803, pop. acct.

SCHINER, Fauna Austr., I, 594; Novara, 306.—Madeira, Cape of Good Hope, China, Australia, etc.

SNOW, Psyche, III, 340, 1882, oc. far from dwellings in west, etc.

ROEDER, Stett. Ent. Zeit., 1885, 347.

PACKARD, Proc. Boston Soc. Nat. Hist., XVI, 136-150, transformations, I pl.; the larvæ live in horse-dung.

OSTEN SACKEN, Berl. Ent. Zeitsch., XXXI, 1887, 21, abstract of Portchinsky's important Russian paper on the larval habits, etc.

VAN DER WULP, Dipt. Sumatra Exped., 43; Tijdschr. v. Ent., XXVI, sep. 37; Biologia, Dipt., II, 294, bibliog., etc.—Mexico, Costa Rica, etc.

LUGGER, 2d Rept. Ent. Minn., 1896, 145-155, figs., life-history.

COQUILLETT, Proc. U. S. N. M., XXII, 256, oc. in Porto Rico.

HOWARD and MARLATT, Bull. 4, n. ser., Div. of Ent., 43, figs. and biol., etc.

HOWARD, Bull. 10, n. ser., Div. of Ent., 63-65, biology, etc.; Farmers' Bull., 155, Dept. of Agr., figs. all stages; Proc. Wash. Acad. Sci., II, 569, figs. and extended notes on breeding habits (occasionally breeds in human excrement); Canad. Ent., XXXIII, 44, bred from cow-dung.

GIGLIO-TOS, Ditt. del Mess., IV, 7, bibl. and note.

HOUGH, Biol. Bull., I, 28, figs. and notes; Kans. Univ. Quart., IX, 219, oc. at Rio Janeiro.

flavinervis THOMSON, Eugen. Resa, 547.—Honolulu.

GIGLIO-TOS, Ditt. del Mess., IV, 8, oc. in Mex.

flavipennis BIGOT, Bull. Soc. Zool. France, 1887, 605.—Rocky Mts.

BRAUER, Sitzungsber. K. Akad., CVIII, 528, note on type, "*? domestica*."

mortisequa KIRBY, see *Cynomyia cadaverina*.

occidentis WALKER, Dipt. Saund., 332.—U. S.

pusilla MACQUART, Dipt. Exot., Suppl. III, 59.—Hayti.

BRAUER, Sitzungsber. K. Akad., CVIII, 527, note on type; it is not a *Musca*, very dirty, unrecognizable.

roralis O. FABRICIUS, Fauna Grœnl., 205, 164.—Greenland.

LUNDBECK, Dipt. Grœnl., II, 310, notes; unrecognizable.

sensifera WALKER, Trans. Ent. Soc., n. ser., v, 314.—Mex.

vivax O. FABRICIUS, Fauna Grœnl., 206.—Greenland.

LUNDBECK, Dipt. Grœnl., II, 310, notes (type is a Syrphid, but unrecognizable).

GRAPHOMYIA.

DESVOIDY, Myodaires, 403, 1830.

SCHINER, Fauna Austr., I, 581, 1862.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 156, 1889; VI, 179, 1893.

- contigua** WALKER, Dipt. Saund., 344 (*Musca*).—U. S.
idessa WALKER, List, IV, 908.—Martin Falls, Canada.
maculata SCOPOLI, Ent. Carn., 326 (*Musca*).—Europe.
 FABRICIUS, Spec. Ins., II, 439 (*Musca vulpina*); Ent. Syst., IV, 314 (id.); Syst. Ent., 292 (id.).
 DEGEER, Hist. Nat. Ins., VI, 84 (*Musca*).
 PANZER, Fauna German., XLIV, 22 (id.).
 FALLÉN, Muscides, 49 (id.).
 MEIGEN, Syst. Besch., V, 78 (id.).
 DESVOIDY, Myodaires, 404 (*americana*).—N. A. [Hough.]
 SCHINER, Fauna Austr., I, 582.
 ? WALKER, Dipt. Saund., 348 (*Musca stipata*).—Demerara. [Hough, with a doubt.]
 SCHINER, Novara, 304 (*americana*, preoc.).—S. A.
 OSTEN SACKEN, Berl. Ent. Zeitsch., XXXI, 1887, 22, note on eggs, etc.
 HOUGH, Biol. Bull., I, 29, figs., syn., etc.; Kans. Univ. Quart., IX, 219, oc. in Brazil, syn., etc.
 Alaska—Coquillett; Montreal—Chagnon; N. J.—Smith Cat.
mexicana GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 147; Ditt. del Mess., IV, 9.—Mexico.
 VAN DER WULP, Biologia, Dipt., II, 300, pl. VII, f. 17, oc. and notes.—Guerrero and Tabasco, Mexico.
serva WALKER, Dipt. Saund. 349 (*Musca*).—U. S.

SYNTHESIOMYIA.

- BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 96, 110, etc., 1893.
 HOUGH, Biol. Bull., I, 26, 1899.
brasiliانا BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 96, 100.—Brazil.
 HOUGH, Biol. Bull., I, 29, figs. and oc. in Fla. and Ga.
 Citrus Co., Fla., in a cave—Johnson.

STOMOXYS.

- GEOFFROY, Hist. Abr. d. Ins., II, 538, 1764.
 MEIGEN, Syst. Besch., IV, 158, 1824.
 SCHINER, Fauna Austr., I, 577, 1862.
 BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 155, 1889; VI, 178, 1893.
calcitrans LINNÉ, Syst. Nat., 10th ed. (*Conops*); Fauna Suec., 467 (id.).—Sweden. The Biting House-fly.
 FABRICIUS, Spec. Ins., 467; Ent. Syst., IV, 394 and 395 (*calcitrans* and *tessellata*); Syst. Antl., 280 and 281 (id.).
 DEGEER, Hist. Nat. Ins., VI, 39, pl. IV, f. 12-18 (*Musca pungens*).
 GEOFFROY, Hist. Abr. d. Ins., II, 539, pl. XVIII, f. 2.
 FALLÉN, Hæmatomyzides, 6.
 MEIGEN, Syst. Besch., IV, 160.
 DESVOIDY, Myodaires, 386, 387 (*sugillatrix*, *aculcata*, *pungens*, *dira* and *inimica*).—Brazil, France and N. A.
 MACQUART, Dipt. Exot., II, 3, 114.—Canary Ids.
 FITCH, Trans. N. Y. Agl. Soc., 1849, 803, popular acct.; oc. in United States.
 SCHINER, Fauna Austr., I, 578; Novara, 311.—Europe, Hong Kong, Batavia, Ceylon and Sydney.

RONDANI, Arch. Zool., III, 32.

ROEDER, Stett. Ent. Zeit., 1886, 347.

PACKARD, Proc. Boston Soc. Nat. Hist., XVI, 136-150, pl., numerous references to the transformations.

VAN DER WULP, Biologia, Dipt., II, 292, bibliog. and oc. in Mexico.

GIGLIO-TOS, Ditt. del Mess., IV, 10, bibliog. and oc. in Mexico.

LUGGER, 2d Rept. Ent. Minn., 1896, 160-162, figs.

HOUGH, Biol. Bull., I, 21, figs. and desc.

HOWARD, Proc. Wash. Acad. Sci., II, 577, figs. and habits; breeds in fresh horse-dung.

WASHBURN, Bull. 77, Minn. Ex. Sta., 33, figs.

Very common throughout the inhabited parts of North America.

Porto Rico—Roeder and Coquillett.

cybira WALKER, List, IV, 1159.—Nova Scotia.

parasita FABRICIUS, Ent. Syst., IV, 394; Syst. Antl., 280.—N. A.

HÆMATOBIA.

DESVOIDY, Myodaires, 388, 1830; Dipt. Env. Paris, II, 611, 1863 (the latter as *Priophora*).

MACQUART, Hist. Nat. Dipt., II, 242, 1835.

RONDANI, Dipt. Ital. Prod., V, 230, 1862 (*Lyperosia*).

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 155, 1889; VI, 178, 1893.

alcis SNOW, Canad. Ent., XXIII, 88; 2d Rept. Ent. Soc. Ontario, 96.—N. Minn.; the adults attack the moose, in the dung of which the larvæ live.

serrata DESVOIDY, Myodaires, 389; Dipt. Env. Paris, II, 611 (the latter as *Priophora*).—S. France.

MACQUART, Hist. Nat. Dipt., II, 244.

RONDANI, Dipt. Ital. Prod., V, 230 (*Lyperosia*).

WILLISTON, Entom. Americana, V, 189 (*cornicola*).—Va.

LINTNER, Country Gentleman, Sept. 20, 1888, an unknown fly occurring on horns of cattle; Oct. 11, specimens received and sent to Osten Sacken; Nov. 29, determined as *H. serrata*, on authority of Kowarz.

LINTNER, 5th N. Y. Rept., 1889, 220-227, bibliog., habits, figs.; "The Horn Fly."—N. Y.

RILEY and HOWARD, Ins. Life, II, 60 (*cornicola*); 93, full biology, syn., etc.

Note.—It appears from the article just mentioned that this European species was first observed in New Jersey and Maryland, on cattle, in the summer and fall of 1887, although the first reference in print was by Lintner, supra, in 1888. Williston saw it from Pennsylvania in 1887 also. The subsequent spread of the fly was traced by frequent references in Insect Life, in the second and following volumes; the references may be found in the general index of the periodical. Other references which I have collected are mostly to brief notes; the principal ones I list.

WILLISTON, Amer. Nat., 1889, sep., 7 pp. and pl.

SMITH, Bull. 62, N. J. Expt. Sta.; Psyche, V, 343, figs., 1890.

LUGGER, 2d Rept. Ent. Minn., 1896, 162-166, pl. XII, f. 136.

RILEY, Dept. Agr. Rept., 1889, 345-348, pl. IV, V; life hist., etc.; 1891, 239, notes on spread; 1892, 159, same.

FLETCHER, Bull. 14, Cent. Exp. Farm, Ottawa, Canada; Trans. Royal Soc. Canada, Sec. ser., V, 229, notes decrease.

HERRICK, Bull. 53, Miss. Ex. Sta., 1900.

WASHBURN, Bull. 77, Minn. Ex. Sta., 31, fig.

HOUGH, Biol. Bull., 1, 22, figs.; comparison with *alcis*.

Generally distributed throughout the United States and Eastern Canada; it reached Idaho in 1901; the larvæ are found in fresh cow-dung.

HEMICHLORA.

VAN DER WULP, Biologia, Dipt., 11, 303, 1896.

vittigera BIGOT, Bull. Soc. Zool. France, 1887, 613 (*Cyrtoncurea*).—Mexico.

? WIEDEMANN, Auss. Zweifl., 11, 354 (*Idia viridis*).—N. A.

GIGLIO-TOS, Ditt. del Mess., 11, 13 (*Cyrtoncurina*).—Mex.

VAN DER WULP, Biologia, Dipt., 11, 303, pl. VII, f. 21, oc. and notes.—Guerrero, Mex.; Guatemala.

WILLISTON, Manual, 143, may be *Idia viridis* WIED.

BRAUER, Sitzungsber. d. K. Akad., CVIII, 526, notes on Bigot's type.—refers it to the Anthomyidæ.

HOUGH, Biol. Bull., 1, 22, syn. of *viridis*, with a little doubt.

MYIOSPILA.

RONDANI, Dipt. Ital. Prod., 1, 91, 1856 (*Myospila*).

SCHINER, Fauna Austr., 1, 598, 1862 (id.).

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., 11, 156, 1889; VI, 179, 1893.

VAN DER WULP, Biologia, Dipt., 11, 303, 1896.

meditabunda FABRICIUS, Spec. Ins., 11, 444 (*Musca*); Syst. Antl., 297 (id.).—Europe.

MEIGEN, Syst. Besch., v, 79 (*Musca*).

SCHINER, Fauna Austr., 1, 598.

? THOMSON, Eugen. Resa, 549 (*Cyrtoncurea quadrisetosa*).—Cal. [Hgh., with a doubt.]

OSTEN SACKEN, Berl. Ent. Zeitsch., XXXI, 22, note on eggs, from Portchinsky.

VAN DER WULP, Biologia, Dipt., 11, 303, oc.—Durango, Orizaba and Guerrero, Mex.

COQUILLETT, Proc. Wash. Acad. Sci., 11, 441, oc. in Alaska.

HOUGH, Biol. Bull., 1, 23, figs.

HOWARD, Proc. Wash. Acad. Sci., 11, 576, figs. and habits; reared from human excrement; Canad. Ent., XXXIII, 44, oc. in Va.; breeds abundantly in cow-dung.

Common throughout the United States.

MUSCINA.

DESVOIDY, Myodaires, 406, 1830.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 391, 1891; VI, 179, 1893 (both *Pararicia*); syn. in index, VI, 235.

VAN DER WULP, Biologia, Dipt., 11, 304, 1896.

HOUGH, Biol. Bull., 1, 24, 1899; table of species.

assimilis FALLÉN, Muscides, 56 (*Musca*).—Europe.

MEIGEN, Syst. Besch., v, 76 (*Musca casia*).

DESVOIDY, Myodaires, 408 (*Muscina fungivora* and perhaps *concolor*).

MACQUART, Dipt. Nord France, 11 (*Cyrtoncurea aperta*).

ZETTERSTEDT, Ins. Lapp., 660 (*Musca borealis*); Dipt. Scand., 11, 1350 (*Cyrtoncurea assimilis* and *casia*).

SCHINER, Fauna Austr., 1, 597, 598 (id.).

RONDANI, Dipt. Ital. Prod., v, 214, 216 (*Cyrtoncura*).

BIGOT, Bull. Soc. Zool. France, xii, 614 (*Cyrtoncura anthomydca*).—Rocky Mts., N. A.

STROBL, Dipt. Steiermark, ii, 76 (*Cyrtoncura*).

GIGLIO-TOS, Ditt. del Mess., iv, 15 (*Cyrtoncura anthomydca*).—Mex.

VAN DER WULP, Biologia, Dipt., ii, 311 (*Clinopera anthomydca*).—Mex.

HOWARD, Proc. Wash. Acad. Sci., ii, 577, oc. in "many different parts of the United States."

BRAUER, Sitzungsber. d. K. Akad., cviii, 526, notes on Bigot's type—related to *Phasiophana*, a South American genus.

HOUGH, Biol. Bull., i, 25, syn. and oc. in U. S.—Rocky Mts.; figs., but no desc.

N. J.—Smith Cat.; Montreal—Chagnon; Axton, N. Y.—M. and H.

aurantiaca HOUGH, Biol. Bull., i, 25, figs.—Tifton, Ga.

fulvipes BIGOT, Bull. Soc. Zool. France, 1887, 613 (*Cyrtoncura*).—Mex.

linea VAN DER WULP, Biologia, Dipt., 304, pl. vii, f. 22.—Guerrero, Mex.

mexicana MACQUART, Dipt. Exot., ii, 3, 158, pl. xxi, f. 9 (*Cyrtoncura*).—Mex.

GIGLIO-TOS, Boll. R. Univ. Torino, viii, No. 147; Ditt. del Mess., iv, 13 (id.).—Mex.

VAN DER WULP, Biologia, Dipt., ii, 311, gen. ref.

nigriceps BIGOT, Bull. Soc. Zool. France, 1887, 615 (*Cyrtoncura*).—Rocky Mts.

GIGLIO-TOS, Ditt. del Mess., iv, 13 (*Cyrtoncurina*).—Mex.

VAN DER WULP, Biologia, Dipt., ii, 311, refers to *Morellia*.

BRAUER, Sitzungsber. d. K. Akad., cviii, 526, refers type to *Pararicia*.

omole WALKER, List, iv, 930 (*Anthomyia*).—Martin Falls, Canada.

STEIN, Die Walk. Anth., 203, 202, notes and syn. (*Pararicia*).

pallidicornis BIGOT, Bull. Soc. Zool. France, 1887, 614 (*Cyrtoncura*).—Mexico.

VAN DER WULP, Biologia, Dipt., ii, 311, gen. ref.

BRAUER, Sitzungsber. d. K. Akad., cviii, 526, refers type to *Pararicia*.

HOUGH, Kans. Univ. Quart., ix, 222.—Brazil.

parilis GIGLIO-TOS, Boll. R. Univ. Torino, viii, No. 147; Ditt. del Mess., iv, 14 (both *Cyrtoncurina*).—Mexico.

VAN DER WULP, Biologia, Dipt., ii, 311, gen. ref.

? *recurva* THOMSON, Eugen. Resa, 548 (*Cyrtoncura*).—Cal.

similis WALKER, List, iv, 930 (*Anthomyia*); 931 (*Anth. nigra*).—Martin Falls, Canada.

STEIN, Die Walk. Anth., 202, 209, notes on types and syn.

✓ *stabulans* FALLÉN, K. Vetenskap. Akad. Förh., 1816, 252 (*Musca*); Muscides, 52 (id.).—Sweden.

WIEDEMANN, Zool. Mag., i, 79 (*M. cinerascens*).

MEIGEN, Syst. Besch., v, 75 (id.).

SCHINER, Fauna Austr., i, 597 (*Cyrtoncura*). Larvæ have been reared from fungi and from lepidopterous larvæ.

LABOULBENE, Bull. Soc. Ent. France, 1883, No. 14, larvæ in human stomach.

RILEY, 4th Rept. Ent. Comm., 108, bred from pupæ of *Aletia xyliana*.

RILEY, Rept. Dept. Agr., 1892, 167, pl. v, f. 4 (*Cyrtoncura*), larvæ of destroy pupæ of elm leaf-beetle.

VAN DER WULP, Tijdschr. v. Ent., xxvi, oc. in Argentina.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., v, 391, one of the types of *Pararicia*.

BAKER, Ent. News, vi, 174, reared from rotting squash roots at Fort Collins, Col.

HOUGH, Biol. Bull., i, 24, fig., etc.—U. S. everywhere.

- HOWARD, Proc. Wash. Acad. Sci., II, 574, fig. and habits; reared from human excrement (Coquillett doubts the vegetable feeding habit, but I have reared it from rotting radishes at Moscow, Idaho).
- texana** HOUGH, Biol. Bull., I, 25, figs.—Texas.
- tripunctata** VAN DER WULP, Biologia, Dipt., II, 305.—Guerrero, Morelos and N. Yucatan, Mexico.
- HOWARD, Proc. Wash. Acad. Sci., II, 576, note on habits.
Porto Rico—Coquillett.
- vecta** GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 147; Ditt. del Mess., IV, 14 (*Cyrtoneurina*).—Mexico.
- VAN DER WULP, Biologia, Dipt., II, 311, gen. ref.

CLINOPERA.

- VAN DER WULP, Biologia, Dipt., II, 305, 1896, def. and table of species.
- anthomydea** BIGOT, see *Muscina assimilis*.
- digrama** VAN DER WULP, Biologia, Dipt., II, 308.—Guerrero and Orizaba, Mex.
- dorsilinea** VAN DER WULP, Biologia, Dipt., II, 308.—Guerrero, Mex.
- frontina** VAN DER WULP, Biologia, Dipt., II, 306.—Tabasco, Mex.
- gluta** GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 147, 1893; Ditt. del Mess., IV, 15 (*Cyrtoneurina* in both).—Mexico.
- VAN DER WULP, Biologia, Dipt., II, 311, gen. ref.
- hieroglyphica** VAN DER WULP, Biologia, Dipt., II, 307, pl. VII, f. 23.—Guerrero and Tabasco, Mex.
- inuber** GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 147; Ditt. del Mess., IV, 15 (both *Cyrtoneurina*).—Mexico.
- VAN DER WULP, Biologia, Dipt., II, 308, pl. VII, f. 24; oc., gen. ref., etc.—Tabasco, Mex.
- HOUGH, Biol. Bull., I, 25, figs., no desc.
- monstrata** VAN DER WULP, Biologia, Dipt., II, 309.—Guerrero, Mex.
- pellex** GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 147; Ditt. del Mess., IV, 16 (both *Cyrtoneurina*).—Mex.
- VAN DER WULP, Biologia, Dipt., II, 311, gen. ref.
- polystigma** VAN DER WULP, Biologia, Dipt., II, 309, pl. VII, f. 25.—Guerrero and Vera Cruz, Mex.
- pterostigma** VAN DER WULP, Biologia, Dipt., II, 309.—Tabasco, Mex.
- uber** GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 147; Ditt. del Mess., IV, 17 (both *Cyrtoneurina*).—Mexico.
- VAN DER WULP, Biologia, Dipt., II, 307.—Guerrero, Vera Cruz, and Tabasco, Mexico.

CYRTONEURINA.

GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 147, 1893; Ditt. del Mess., IV, 13, 1895.

VAN DER WULP, Biologia, Dipt., II, regards this genus as unavailable. Without making any direct reference to it, he distributes the species among *Hemichlora*, *Muscina* and *Clinopera*. See also Hough, Biol. Bull., I, 24.

HYADESIMYIA.

BIGOT, Miss. du Cap Horn, VI, Zool. Dipt., 1888, 26.

BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., IV, 161, may be an *Cestrid*.

? **grisea** GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 147; Ditt. del Mess., IV, 8, f. 2.—Oaxaca, Mex. Doubtful if it be this genus—J. M. A.

ANTHOMYIDÆ.

Besides the tables of Schiner and Williston, the following literature may be consulted:

BIGOT, Annales, 1882, 13, table of all genera.

HAGEN, Canad. Ent., XIII, 43-51, publishes Meade's comments on the collection at Harvard, 1881.

LINTNER, 1st N. Y. Report, 168-172, valuable discussion of larval habits, with list of New York species.

TOWNSEND, Trans. Amer. Ent. Soc., XIX, 290, table of N. A. genera.

VAN DER WULF, Biologia, Dipt., II, 312, table of Mexican genera.

MEADE, Desc. List Brit. Anthomyidæ, London, 1897, table of genera.

HOUGH, Ent. News, x, 63, 1899, gives Girschner's definition of the family—not accepted herein.

COQUILLETT, Jour. N. Y. Ent. Soc., IX, 134, 1901, on the types of the genera.

SCHNABL, Wien. Ent. Zeit., XXI, 127-135, 1902, discussion of the hypopygium in several genera.

HYDROTÆA.

DESVOIDY, Myodaires, 509, 1830.

SCHINER, Fauna Austr., I, 613, 1862.

RONDANI, Dipt. Ital. Prod., VI, 19, 1877.

VAN DER WULF, Biologia, Dipt., II, 322, 1896.

MEADE, Descr. List Brit. Anth., 24, 1897.

STEIN, Verh. Zool.-Bot. Ges., 1903, 285-337, mon. of European species.

acuta STEIN, Berl. Ent. Zeitsch., XLII, 167.—Ga. Montreal—Chagnon.

armipes FALLÉN, Muscides, 75 (*Musca*).—Europe.

MEIGEN, Syst. Besch., v, 138 (*Anthomyia*).

ZETTERSTEDT, Dipt. Scand., IV, 1434 (*Aricia*).

SCHINER, Fauna Austr., I, 616. Larvæ in cowdung.

LOEW, in Silliman's Journal, oc. in N. A.

RONDANI, Dipt. Ital. Prod., VI, 23.

HAGEN, Canad. Ent., XIII, 47, oc. in Mass. and Nebr.

MEADE, Desc. List, 27.

STEIN, Berl. Ent. Zeitsch., XLII, 165, oc. in Ida., Kans., S. D., Mass.

HOWARD, Canad. Ent., XXXIII, 44, oc. in Va.; breeds in cowdung.

N. J.—Smith Cat.; Montreal—Chagnon.

bispinosa ZETTERSTEDT, Dipt. Scand., IV, 1428 (*Aricia*).—N. Europe and Greenland.

HOLMGREN, Ins. Nordgrœn., 101 (id.).—Greenland.

SCHINER, Fauna Austr., I, 615.

LUNDBECK, Dipt. Grœn., I, 309, oc. in Greenland.

Montreal—Chagnon; White Mts., N. H.—Slosson.

ciliata FABRICIUS, Ent. Syst., IV, 333 (*Musca*).—Europe.

FALLÉN, Muscides, 61 (*Musca spinipes*).

MEIGEN, Syst. Besch., v, 159, 160 (*Anthomyia ciliata* and *bimacula*).

DESVOIDY, Myodaires, 517 (*Peronia rostrata*).

SCHINER, Fauna Austr., I, 614; syn., etc.

STÆGER, Grœn. Antl., oc. in Greenland.

MEADE, Desc. List, 24.

dentipes FABRICIUS, Syst. Antl., 303 (*Musca*).—Europe.

FALLÉN, Muscides, 60 (*Musca*).

MEIGEN, Syst. Besch., v, 144 (*Anthomyia*).

- ZETTERSTEDT, Dipt. Scand., IV, 1426 (*Aricia*).
 SCHINER, Fauna Austr., I, 615; larvæ in decaying vegetable matter.
 LOEW, in Silliman's Jour., oc. in N. A.
 RONDANI, Dipt. Ital. Prod., VI, 21.
 HAGEN, Canad. Ent., XIII, 47, oc. in Canada and Alaska.
 VAN DER WULP, Biologia, Dipt., II, 323, oc. and syn.—Guerrero, Mex., and Costa Rica.
 MEADE, Desc. List, 25.—England.
 STEIN, Berl. Ent. Zeitsch., XLII, 165.—Ida., Ont., Ga., S. D.
 HOWARD, Proc. Wash. Acad. Sci., II, 584, habits; reared from human excrement.—D. C., Md. N. J.—Smith Cat.; Montreal—Chagnon.
fuscula FALLÉN, in Chagnon's List, is probably a mistake for *Homalomyia fuscula*, q. v.
impexa LOEW, Besch. Eur. Dipt., III, 243.—Europe.
 MEADE, Desc. List, 26.
 STEIN, Berl. Ent. Zeitsch., XLII, 165, oc. in Mass.
 N. J.—Smith Cat.
irritans FALLÉN, Muscides, 62 (*Musca*).—Europe.
 ZETTERSTEDT, Dipt. Scand., IV, 1431 (*Aricia*).
 SCHINER, Fauna Austr., I, 617.
 STÆGER, Grœnl. Antl., 363, oc. in Greenland.
 RONDANI, Dipt. Ital. Prod., VI, 24.
 MEADE, Desc. List, 26.
lata WALKER, List, IV, 963 (*Eriphia*).—Martin Falls, Canada.
 STEIN, Die Walk. Anth., 199, gen. ref.
metatarsata STEIN, Berl. Ent. Zeitsch., XLII, 166.—Mass., Pa.
 HOWARD, Proc. Wash. Acad. Sci., II, 585, oc. in Md.; note.
occulta MEIGEN, Syst. Besch., V, 133 (*Anthomyia*); VII, 324 (*Lasiops*).
 ZETTERSTEDT, Dipt. Scand., IV, 1486 (*Aricia*).
 SCHINER, Fauna Austr., I, 614.
 MEADE, Desc. List, 25.
 STEIN, Berl. Ent. Zeitsch., XLII, 165, oc. in N. A.—Ill.
 White Mts., N. H.—Slosson.
stygia MEIGEN, see *Limnophora*.
succedens STEIN, Die Walk. Anth., 212.—U. S.
unispinosa STEIN, Berl. Ent. Zeitsch., XLII, 165.—Ont., Col.

DRYMEIA.

- MEIGEN, Syst. Besch., V, 204, 1826.
 SCHINER, Fauna Austr., I, 620, 1862.
 HAGEN, Canad. Ent., XIII, 46, 1881, quotes Meade on the occurrence of a species in N. A.—Hudson Bay Terr.

ERIPHIA.

- MEIGEN, Syst. Besch., V, 206, 1826.
 RONDANI, Dipt. Ital. Prod., VI, 31, 1877.
 POKORNY, Wien. Ent. Zeit., XII, 53, 1893.
 TOWNSEND, Trans. Amer. Ent. Soc., XIX, 292, notes.
acela WALKER, see *Lispa tentaculata*.
arelate WALKER, see *Prosalpia*.
biquadrata WALKER, see *Limnophora*.
ciliata WALKER, see *Chortophila muscaria*.

flavifrons WALKER, see *Pegomyia*.

grisea WALKER, see *Prosalpia silvestris*.

? *lamnia* WALKER, List, iv, 964.—Martin Falls, Canada.

Not mentioned by Stein; almost certainly belongs to some other genus.

lata WALKER, see *Hydrotæa*.

marginata WALKER, see *Phorbia fusciceps*.

pretiosa WALKER, see *Prosalpia arelate*.

POGONOMYIA.

RONDANI, Dipt. Ital. Prod., vi, 32, 1877.

VAN DER WULP, Biologia, Dipt., ii, 334, 1896.

MEADE, Desc. List, 29, 1897.

? *alpicola* RONDANI, Dipt. Ital. Prod., vi, 32.—Italy.

MEADE, Desc. List, 29.

? STEIN, Berl. Ent. Zeitsch., XLII, 169.—Idaho; identified with a doubt.

aterrima VAN DER WULP, Biologia, Dipt., ii, 335, pl. VIII, f. 13.—Durango, Mex.

OPHYRA.

DESVOIDY, Myodaires, 516, 1830.

SCHINER, Fauna Austr., i, 619, 1862.

RONDANI, Dipt. Ital. Prod., vi, 34, 1877.

VAN DER WULP, Biologia, Dipt., ii, 323, 1896.

MEADE, Desc. List, 28, 1897.

ænescens WIEDEMANN, Auss. Zw., ii, 435 (*Anthomyia*).—New Orleans, La.; West Indies.

MACQUART, Dipt. Exot., Suppl. i, 203.—Texas.

WILLISTON, Trans. Ent. Soc. Lond., 1896, 367.—St. Vincent, W. I.

STEIN, Berl. Ent. Zeitsch., XLII, 170, oc. in Ga.

Porto Rico—Roeder; Fla.—Johnson.

argentina BIGOT, Annales, 1885, 302.—Buenos Ayres, S. A.

GIGLIO-TOS, Ditt. del Mess., iv, 26, oc. in Orizaba and Tehuacan, Mex.

VAN DER WULP, Biologia, Dipt., ii, 323, note and oc.—Mexico City.

grænlandica LUNDBECK, Dipt. Grœnl., ii, 281.—Greenland.

leucostoma WIEDEMANN, Zool. Mag., i, 82 (*Anthomyia*).—Europe.

MEIGEN, Syst. Besch., v, 160 (id.).

DESVOIDY, Myodaires, 516 (*nitida* and *pubescens*).

WALKER, List, iv, 956 (*Anthomyia opalia*).—Nova Scotia. [Stein.]

SCHINER, Fauna Austr., i, 620.

LOEW, in Silliman's Jour., oc. in N. A.

MEADE, Ent. Mo. Mag., 1878, 251, oc. in N. A.; Desc. List, 28.

STEIN, Berl. Ent. Zeitsch., XLII, 170, oc. in Kans., Ida., S. D., Ont., Mass., Ill., Col.

RONDANI, Dipt. Ital. Prod., vi, 35.

HOWARD, Proc. Wash. Acad. Sci., ii, 582, habits; reared from human excrement; Canad. Ent., XXXIII, 44, oc. in Va.; breeds in cowdung.—D. C., Va.

MOTTER, Jour. N. Y. Ent. Soc., vi, 223, oc. in human graves.

N. J.—Smith Cat.; Montreal—Chagnon; Province of Quebec—Fyles.

BRACHYOPHYRA.

GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 147, 1893; Ditt. del Mess., iv, 26, 1895.

effrons GIGLIO-TOS, locis citatis, f. 6.—Tuxpango, Mex.

AZELIA.

DESVOIDY, Myodaires, 592, 1830.

MACQUART, Hist. Nat. Dipt., II, 329, 1835 (*Atomogaster*).

LOEW, Die Deutsche Arten d. Gatt. *Azelia*, in Ent. Miscellen, Breslau, 1874.

RONDANI, Dipt. Ital. Prod., VI, 37, 1877.

MEADE, Desc. List, 67, 1897.

albicincta FALLÉN (*Atomogaster*), see *Anthomyia*.

cilipes HALIDAY, Ann. Nat. Hist., II, 105.—Europe.

ZETTERSTEDT, Dipt. Scand., IV, 1592 (*Aricia stægeri*); Ins. Lapp., 685 (*A. triquetra* McQ.).

RONDANI, Dipt. Ital. Prod., VI, 41.

MEADE, Ent. Mo. Mag., April, 1878, oc. in N. A. (*stægeri*); Desc. List, 68, syn.

STEIN, Berl. Ent. Zeitsch., XLII, 170, oc. in Pa.

gibbera MEIGEN, Syst. Besch., V, 152 (*Anthomyia*).—Europe.

MEADE, Desc. List, 69.

STEIN, Berl. Ent. Zeitsch., XLII, 170, oc. in N. A.—Ill.

HOMALOMYIA.

BOUCHÉ, Naturgesch. d. Ins., I, 88, 1834.

SCHINER, Fauna Austr., I, 653, 1862.

RONDANI, Dipt. Ital. Prod., VI, 42, 1877.

VAN DER WULP, Biologia, Dipt., II, 331, 1896.

MEADE, Desc. List, 1897, 59.

STEIN, Berl. Ent. Zeitsch., XL, 1895, 141 pp., full monograph of European species.

? RILEY, Rept. Dept. Agr., 1892, 167, pl. v, f. 3, notes larva of, destroying pupæ of elm leaf-beetle; gen. ref. by Williston, with doubt.

armata MEIGEN, Syst. Besch., V, 139 (*Anthomyia*).—Europe.

ZETTERSTEDT, Dipt. Scand., IV, 1563 (*Aricia*).

SCHINER, Fauna Austr., I, 655.

STEIN, Berl. Ent. Zeitsch., XL, 66, 19.

MEADE, Desc. List, 63.

LUNDBECK, Dipt. Grœnl., II, 289, oc. in Greenland.

brevis RONDANI, Dipt. Ital. Prod., VI, 47.—Europe.

STEIN, Berl. Ent. Zeitsch., XL, 51; XLII, 176, oc. in Ga., and notes.

HOWARD, Proc. Wash. Acad. Sci., II, 580, figs. and habits; breeds abundantly in human excrement.—Wash., Va.

✓ **canicularis** LINNÉ, Fauna Suecica, 2d edit., 454 (*Musca*).—Sweden.

FABRICIUS, Syst. Antl., 303 (id.).

MEIGEN, Syst. Besch., V, 143 (*Anthomyia*).

ZETTERSTEDT, Dipt. Scand., IV, 1573 (*Aricia*).

WALKER, List, IV, 951 (*Anthomyia isura*).—Nova Scotia. [Stein, from type.]

SCHINER, Fauna Austr., I, 654; Novara, 298.—Madeira, St. Paul Id., and the Nicobar Ids.

LOEW, Silliman's Jour., oc. in N. A.

BIGOT, Annales, 1885, 284, oc. in Buenos Ayres.

VAN DER WULP, Biologia, Dipt., II, 331, oc. and bibl.—Costa Rica.

MEADE, Desc. List, 63.

STEIN, Berl. Ent. Zeitsch., XL, 55; XLII, 171, oc. in Ida., Kans., S. D., Ont.,

Mass., Col., Pa., Ill.

- HOWARD, Proc. Wash. Acad. Sci., II, 581, habits; reared from human excrement.
- N. J.—Smith Cat.; White Mts., N. H.—Slosson; Greenland—Lundbeck; Axton, N. Y.—M. and H.
- corvina** VERRALL, Ent. Mo. Mag., XXVIII, 149, 1892.—England.
- MEADE, Desc. List, 65.
- STEIN, Berl. Ent. Zeitsch., XL, 102; XLII, 177, oc. in N. A.—S. D.
- dentata** BIGOT, Annales, 1885, 284.—Rocky Mts.
- depressa** STEIN, Berl. Ent. Zeitsch., XLII, 173.—Mass.
- fasciculata** LOEW, Berl. Ent. Zeitsch., XVII, 47, 51, 1873.—Europe.
- STEIN, Berl. Ent. Zeitsch., XL, 54.
- N. J.—Smith Cat.
- femoralis** STEIN, Berl. Ent. Zeitsch., XLII, 282.—N. A., no locality.
- femorata** LOEW, Wien. Ent. Monatsch., v, 42; Cent., x, 68.—Cuba.
- BIGOT, Annales, 1885, 268, note.
- STEIN, Berl. Ent. Zeitsch., XLII, 176, oc. in Ga. and Fla.
- St. John's R., Fla.—Johnson; "Bred in large numbers from the dead fresh-water shells."
- flavibasis** STEIN, Berl. Ent. Zeitsch., XLII, 171.—Ill.
- COQUILLET, Proc. Wash. Acad. Sci., II, 447, oc. in Alaska.
- flavivaria** COQUILLET, Proc. Wash. Acad. Sci., II, 446.—Metlakahtla, etc., in Alaska.
- fuscata** FALLÉN, Muscides, 86 (*Musca*).—Europe.
- MEIGEN, Syst. Besch., v, 145 (*Anthomyia floricola*).
- ZETTERSTEDT, Dipt. Scand., IV, 1686 and VIII, 3310 (*Anthomyza*).
- SCHINER, Fauna Austr., I, 656 (*floricola*).
- LOEW, Berl. Ent. Zeitsch., XVII, 47, 52 (*obesa*); Cent., x, 69 (*tetracantha*).—Europe; U. S. [Stein.]
- RONDANI, Dipt. Ital. Prod., VI, 56 (*cilicrura*).
- MEADE, Brit. Anth., 1882, 202 and 205 (the latter *floricola*); Suppl., 1887; Desc. List, 61.
- STEIN, Berl. Ent. Zeitsch., XL, 25, full syn., desc., etc.
- See *Phorbia fusciceps*.
- glaucescens** ZETTERSTEDT, Dipt. Scand., IV, 1586 (*Aricia*).—Europe.
- RONDANI, Dipt. Ital. Prod., VI, 54 (*herniosa*).
- MEADE, Brit. Anth., 204 (*herniosa*); Desc. List, 66, syn.
- STEIN, Berl. Ent. Zeitsch., XL, 112; XLII, 171, oc. in S. D. and Ont.
- incisurata** ZETTERSTEDT, Ins. Lapp., 679 and 683 (*Anthomyza incisurata* and *impura*); Dipt. Scand., IV, 1577 (*Aricia*).—N. Europe.
- SCHINER, Fauna Austr., I, 656.
- RONDANI, Dipt. Ital. Prod., VI, 50 (*prostrata* Rossi).
- MEADE, Ent. Mo. Mag., 1878, oc. in N. A. (quoted by O. S., Cat., 170); Brit. Anth., 1882, 202; Desc. List, 66.
- GIGLIO-TOS, Ditt. del Mess., IV, 27, note and oc. in Mex. (*prostrata*).
- STEIN, Berl. Ent. Zeitsch., XL, 115; XLII, 171, oc. in Minn.
- lævis** STEIN, Berl. Ent. Zeitsch., XLII, 174.—Mass.
- manicata** MEIGEN, Syst. Besch., v, 140 (*Anthomyia*).—Europe.
- DUFOUR, Annales Sci. Nat., 1838 (*Anthomyia paradoxalis*).
- ZETTERSTEDT, Ins. Lapp., 679 (*Anthomyza armillaris*); Dipt. Scand., IV, 1576 (*Aricia*).
- WALKER, List, IV, 951 (*Anthomyia acra*).—Martin Falls, Canada. [Stein.]
- LOEW, in Silliman's Jour., oc. in N. A.—Sitka; see also Hagen, Canad. Ent., XIII, 48.

MEADE, Brit. Anthomyidæ, 203; Desc. List, 62.

STROLL, Anth. Steiermarks, 237.

STEIN, Berl. Ent. Zeitsch., XL, 39, syn., etc.

mexicana BIGOT, Annales, 1885, 284.—Mexico.

GIGLIO-TOS, Ditt. del Mess., IV, 27, note.

VAN DER WULP, Biologia, Dipt., II, 332.—Guerrero, Mex.; Costa Rica.

minutipalpis STEIN, Berl. Ent. Zeitsch., XL, 106; XLII, 283, oc.—Europe; Mass.

pellucida STEIN, Berl. Ent. Zeitsch., XLII, 283.—Ga.

polychæta STEIN, Berl. Ent. Zeitsch., XL, 108; XLII, 171, oc.—Europe; Mass.

? WIEDEMANN, Zool. Mag., 82 (*Anthomyia lepida*).

SCHINER, Fauna Austr., I, 655 (*lepida* WIED.).

prostrata ROSSI, see *incisurata*.

prunivora WALSH, Amer. Entomologist, II, 137, larva and adult.—Ill.

Note.—In the same place, Walsh describes *H. leydii* and *H. wilsonii*, in the larval state only; I presume they can never be identified.

rupecula BIGOT, Annales, 1885, 285.—Rocky Mts.

scalaris FABRICIUS, Ent. Syst., IV, 332 (*Musca*); Syst. Antl., 305 (id.).—Europe.

MEIGEN, Syst. Besch., V, 141 (*Anthomyia*).

ZETTERSTEDT, Dipt. Scand., IV, 1575 (*Aricia*).

DUFOUR, Ann. di Sci. Nat., extr. 5, no. 2 (*Anth. manicata*). [Rond.]

DESVOIDY, Myodaires, 567 (*Faunia saltatrix*).

SCHINER, Fauna Austr., I, 654; larvæ reared from human excrement.

RONDANI, Dipt. Ital. Prod., VI, 55.

MEADE, Brit. Anth., 202; Desc. List, 63.

LOEW, in Silliman's Jour., oc. in N. A.

STEIN, Berl. Ent. Zeitsch., XL, 46, full desc. and syn.

HOWARD, Proc. Wash. Acad. Sci., II, 582, habits; reared from human excrement.

Widespread in North America—J. M. A.

serena FALLÉN, Muscides, 76 (*Musca*).—Europe.

MEIGEN, Syst. Besch., V, 200 (*Anthomyia*).

ZETTERSTEDT, Ins. Lapp., 685 (*Anthomyza*); Dipt. Scand., IV, 1594 (*Aricia*).

OSTEN SACKEN, Cat., 170, oc. in N. A., on authority of "Loew in litt."

HAGEN, Canad. Ent., XIII, 48, identified from British Amer. by Loew.

MEADE, Brit. Anth., 204; Desc. List, 65.

STEIN, Berl. Ent. Zeitschr., XL, 100.

spathulata ZETTERSTEDT, see *Cælogyia*.

splendida STEIN, Berl. Ent. Zeitsch., XLII, 170.—Ida.

subpellucens ZETTERSTEDT, see *Cælogyia*.

tetracantha LOEW, see *fuscula*.

trimaculata STEIN, Berl. Ent. Zeitsch., XLII, 176.—Jamaica.

CÆLOGYIA.

HALIDAY, in Westwood's Introduction, II, 143, 1840.

SCHINER, Fauna Austr., I, 656, note, 1862.

MEADE, Brit. Anth., 1882.

STEIN, Berl. Ent. Zeitsch., XL, 12 and 133, 1895.

spathulata ZETTERSTEDT, Dipt. Scand., IV, 1543 (*Aricia*).—N. Europe.

HALIDAY, in Westwood's Introduction, II, App., 143 (*mollissima*, without desc.).—Europe.

RONDANI, Dipt. Ital. Prod., VI, 52 (*Homalomyia mollissima*).

OSTEN SACKEN, Cat., 170, oc. in N. A., on authority of "Loew in litt."

MEADE, Brit. Anth., 224, 1882 (*mollissima*).

- STROBL, Anth. Steiermarks, 238 (id.).
 STEIN, Berl. Ent. Zeitsch., XL, 131.
subpellucens ZETTERSTEDT, Dipt. Scand., IV, 1561 (*Aricia*).—N. Europe.
 OSTEN SACKEN, Cat., 170, oc. in N. A., on authority of "Loew in litt."
 (*Homalomyia*).
 HAGEN, Canad. Ent., XIII, 48, identified by Loew from Sitka (id.).
 STEIN, Berl. Ent. Zeitsch., XL, 134.

CHORISTOMMA.

- STEIN, Berl. Ent. Zeitsch., XL, 138, 1895.
pokorny STEIN, Berl. Ent. Zeitsch., XL, 138; XLII, 284, oc.—Europe; La.

EURYOMMA.

- STEIN, Ent. Nachrichten, XXV, 19, 1899.
communis WALKER, Dipt. Saund., 366 (? *Anthomyia*).—U. S.
 STEIN, Ent. Nachrichten, XXV, 1899, 20 (*hispaniense*, from Spain); Die
 Walk. Anth., 193, syn. and gen. ref.
Note.—The *Pegomyia communis* WALKER, mentioned by Cockerell, Jour.
 N. Y. Ent. Soc., VI, 206, from New Mexico, is probably a different species,
 judging from the generic reference.

HYETODESIA.

- RONDANI, Dipt. Ital. Prod., VI, 110, 1877.
 DESVOIDY, Myodaires, 486 (*Aricia*, preoc.), 1830.
 SCHINER, Fauna Austr., I, 599 (id.), 1862.
 SCHNABL, Horæ Soc. Ent. Ross., XX, 271-440; XXII, 378-486; XXIII, 313-
 347; XXIV, 493-501, 1887-1890, discussion of this and related genera
 (*Aricia*).
 VAN DER WULP, Biologia. Dipt., II, 314, def. and table of Mexican spp.,
 1896.
 MEADE, Desc. List, 4, 1897.
Note.—*Aricia parviceps*, *schinophora*, and *consors* are mentioned by
 Hagen, Canad. Ent., XIII, 44, as being thus labeled by Loew in his N. A.
 material. I take these to be manuscript names.
abacta GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 147, 1893; Ditt. del Mess.,
 IV, 20.—Mexico.
 VAN DER WULP, Biologia, Dipt., II, 316, oc. and note.—Guerrero, Mex.
 White Mts., N. H.—Slosson.
abdicta GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 147; Ditt. del Mess., IV, 21.
 —Mex.
barpana WALKER, List, IV, 933 (*Anthomyia*).—Nova Scotia.
 STEIN, Die Walk. Anth., 188, redesc. from type (*Aricia*).
bispinosa ZETTERSTEDT, see *Hydrotæa*.
brevis STEIN, Berl. Ent. Zeitsch., XLII, 180 (*Aricia*).—Ill., Ark.
brunneinervis STEIN, Berl. Ent. Zeitsch., XLII, 183 (*Aricia*).—Idaho.
 COQUILLET, Proc. Wash. Acad. Sci., II, 442, oc.; Psyche, Jan., 1901, oc.—
 Alaska and N. M.
cærulescens STEIN, Berl. Ent. Zeitsch., XLII, 187 (*Aricia*).—Idaho.
cinerella VAN DER WULP, Tijdschr. v. Ent., X, 150 (*Aricia*).—Wis.
circulatrix WALKER (*Aricia*), see *Spilogaster*.
deleta STEIN, Berl. Ent. Zeitsch., XLII, 178 (*Aricia*).—Ill., Pa.
 ? **deflorata** HOLMGREN, Ins. Nordgrœnl., 102 (*Aricia*).—Greenland.

Note.—According to Stein, Holmgren followed Zetterstedt in including all the black-legged Anthomyidæ in *Aricia*; hence it is doubtful whether this species belongs here.

denudata HOLMGREN, see *Limnophora*.

dorsata ZETTERSTEDT, Dipt. Scand., iv, 1472 (*Aricia*).—N. Europe.

HOLMGREN, Ins. Spetsb., 29; Ins. Nordgrœn., 101 (id.).—Spitzbergen, Greenland.

errans MEIGEN, Syst. Besch., v, 112 (*Anthomyia*).—Europe.

DESVOIDY, Myodaires, 484 (*Treunia nigricornis*). [Schiner.]

SCHINER, Fauna Austr., i, 604 (*Aricia*).

N. J.—Smith Cat.

fabricii HOLMGREN, see *Chortophila*.

frenata HOLMGREN, see *Lasiops*.

houghii STEIN, Berl. Ent. Zeitsch., XLII, 177 (*Aricia*).—Canada.

N. J.—Smith Cat.

icterica HOLMGREN, see *Phorbia*.

incerta WALKER, see *lucorum*.

insons GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 147; Ditt. del Mess., iv, 21.—Mex.

longiseta VAN DER WULP, Biologia, Dipt., II, 315.—Guerrero, Mex.

lucorum FALLÉN, Muscides, 55 (*Musca*).—Europe.

MEIGEN, Syst. Besch., v, 85 (*Anthomyia*).

DESVOIDY, Myodaires, 500 (*Mydina latifica*).

WALKER, List, iv, 928 (*Anthomyia pylone*); Dipt. Saund., 354 (*Anthomyia solita*).—Martin Falls, Canada; U. S. [Stein.]

? WALKER, Dipt. Saund., 354 (*Anthomyia incerta*).—U. S. [Stein, with doubt.]

SCHINER, Fauna Austr., i, 600 (*Aricia*).

RONDANI, Prod. Dipt. Ital., vi, 143.

COQUILLETT, Proc. Wash. Acad. Sci., II, 442, oc. in Alaska.

STEIN, Berl. Ent. Zeitsch., XLII, 182, oc. in Idaho, Kans., Mass., Pa.

N. J.—Smith Cat.; Montreal—Chagnon.

Note.—The *Hyetodesia pylone* mentioned in Mrs. Slosson's White Mts. list and in Smith's N. J. catalogue must have been an erroneous identification.

luteva WALKER, List, iv, 934 (*Anthomyia*).—Nova Scotia.

STEIN, Die Walk. Anth., 201, pt. desc. of type; refers to *Aricia*.

marmorata ZETTERSTEDT, Dipt. Scand., xiv, 6197 (*Aricia*).—N. Europe.

SCHINER, Fauna Austr., i, 601 (id.).

White Mts., N. H.—Slosson (det. Coquillett).

mæsta HOLMGREN, see *Chortophila*.

? **morio** ZETTERSTEDT, Dipt. Scand., iv, 1399 (*Aricia*).—N. Europe.

? LOEW, in Silliman's Jour., oc. in N. A.; refers to it as *Aricia morioides* ZETT., which does not exist, as far as I can learn.

mulcata GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 147; Ditt. del Mess., iv, 20.—Mexico.

VAN DER WULP, Biologia, Dipt., II, 315 (may be the male of *procedens* WALK.).—Guerrero, Mex.

nitida STEIN, Berl. Ent. Zeitsch., XLII, 185 (*Aricia*).—Ontario, Canada.

orbitaseta STEIN, Berl. Ent. Zeitsch., XLII, 186 (*Aricia*).—Idaho.

orichalcea STEIN, Berl. Ent. Zeitsch., XLII, 183 (*Aricia*).—Idaho.

pallidula COQUILLETT, Proc. U. S. N. M., XXV, 122 (*Phaonia*).—S. Ga.

- parsura* GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 147; Ditt. del Mess., IV, 20.—Mex.
- pauxilla* HOLMGREN, see *Limnophora*.
- plumbea* MEIGEN, Syst. Besch., v, 85 (*Anthomyia*).—Europe.
SCHINER, Fauna Austr., I, 601 (*Aricia*).
LUNDBECK, Dipt. Grœnl., I, 308, oc. in Greenland (id.).
- procedens* WALKER, Trans. Ent. Soc. Lond., v, 315 (*Aricia*).—Mex.
GIGLIO-TOS, Ditt. del Mess., IV, 20, note.—Mex.
VAN DER WULP, Biologia, Dipt., II, 315, pt. desc.—Guerrero, Mex.
STEIN, Die Walk Anth., 205, type partly redescribed, but no longer recognizable.
- proxima* VAN DER WULP, Tijdschr. v. Ent., XII, 85 (*Aricia*).—Wis.
? STEIN, Berl. Ent. Zeitsch., XLII, 187, doubtfully identified from Wash. (*Aricia*).
- pruinosa* MACQUART, Dipt. Exot., Suppl. I, 201 (*Aricia*).—Galveston, Tex.
- punctata* STEIN, Berl. Ent. Zeitsch., XLII, 182 (*Aricia*).—S. D., Col.
- ranunculi* HOLMGREN, see *Limnophora denudata*.
- rescita* WALKER, see *Spilogaster*.
- rubella* VAN DER WULP, Biologia, Dipt., II, 314, pl. VIII, f. I.—Guerrero, Mex.
- rugia* WALKER, List, IV, 923 (*Anthomyia*).—Martin Falls, Canada.
STEIN, Die Walk. Anth., 207, type redesc. (*Aricia*).
White Mts., N. H.—Slosson.
- rufitibia* STEIN, Berl. Ent. Zeitsch., XLII, 181.—Ill., Kans., Ga., Pa., La.
N. M.—Coquillett, Psyche, Jan., 1901.
- septentrionalis* STEIN, Berl. Ent. Zeitsch., XLII, 184.—Alaska.
Common in Alaska—Coquillett.
- serva* MEIGEN, Syst. Besch., v, 86 (*Anthomyia*).—Europe.
SCHINER, Fauna Austr., I, 601 (*Aricia*).
N. J.—Smith Cat.; White Mts., N. H.—Slosson.
- solita* WALKER, see *lucorum*.
- striata* STEIN, Berl. Ent. Zeitsch., XLII, 179 (*Aricia*).—Idaho.
- tarsalis* WALKER, see *Canosia*.
- tristicula* HOLMGREN, see *Anthomyia radicum*.
- ? *troëne* WALKER, List, IV, 936 (*Anthomyia*).—Nova Scotia.
STEIN, Die Walk. Anth., 215, type redesc.; gen. ref. with a doubt (*Aricia*).
- umbratica* MEIGEN, Syst. Besch., v, 88 (*Anthomyia*).—Europe.
SCHINER, Fauna Austr., I, 605 (*Aricia*).
RONDANI, Dipt. Ital. Prod., VI, 139.
HOWARD, Canad. Ent., XXXIII, oc. Va.; breeds in cowdung.
Montreal—Chagnon.
- vagans* FALLÉN, Muscides, 78 (*Musca*).—Europe.
MEIGEN, Syst. Antl., v, 112 (*Anthomyia*).
SCHINER, Fauna Austr., I, 604 (*Aricia*).
White Mts., N. H.—Slosson (det. Coquillett).
- varipes* COQUILLET, Proc. Wash. Acad. Sci., II, 441.—Sitka, Yakutat, Kadiak and Popof Id., all in Alaska.
- villicrura* COQUILLET, Proc. Wash. Acad. Sci., II, 443.—Yakutat, etc., Alaska.

TRICHOPTHICUS.

- RONDANI, Dipt. Ital. Prod., IV, 9, 1861 (*Tricophthicus*); VI, 145, 1877.
- RONDANI, Dipt. Ital. Prod., I, 96, 1856 (*Trichops*, preoc.).
- SCHNABL, Horæ Soc. Ent. Ross., XXIV, 497.
- VAN DER WULP, Biologia, Dipt., II, 330, 1896.

crenatus BIGOT, Annales, 1885, 282.—Mex.

GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 147; Ditt. del Mess., IV, 28 (*Lasiops mexicana*).—Orizaba, Mex.

VAN DER WULP, Biologia, Dipt., II, 331 (syn. on p. 347).—Guerrero, Mex.

nigrifrons WALKER, List, IV, 932 (*Anthomyia*).—Martin Falls, Canada.

STEIN, Die Walk. Anth., 203, type redesc.

Note.—In Mrs. Slosson's List, this species is mentioned as occurring in the White Mts., but is referred to *Aricia*; the correctness of the identification is doubtful.

LASIOPS.

MEIGEN, Syst. Besch., VII, 323, 1838.

RONDANI, Dipt. Ital. Prod., VI, 148, 1877.

KOWARZ, Mittheil. d. Münchener Ent. Ver., 1880, 123-140, revision of the European species.

VAN DER WULP, Biologia, Dipt., II, 337, 1896.

MEADE, Desc. List, 41, 1897.

calvicrura COQUILLETT, Proc. Wash. Acad. Sci., II, 444.—Popof Id., Alaska.

✓**cunctans** MEIGEN, Syst. Besch., V, 133 (*Anthomyia*).—Europe.

SCHINER, Fauna Austr., I, 618.

White Mts., N. H.—Slosson (det. Coquillett).

frenata HOLMGREN, Ins. Nordgrœnl., 103 (*Aricia*).—Greenland.

LUNDBECK, Dipt. Grœnl., I, 310, oc. in Greenland, and gen. ref.

COQUILLETT, Proc. Wash. Acad. Sci., II, 444, oc. at Muir Inlet, Alaska.

STEIN, Wien. Ent. Zeit., XXI, 58, type redesc.

hirsutula ZETTERSTEDT, Ins. Lapp., 673 (*Anthomyza*); Dipt. Scand., IV, 1494 (*Aricia*).—N. Europe.

COQUILLETT, Proc. Wash. Acad. Sci., II, 444, oc. in Popof Id., Alaska.

mexicana GIGLIO-TOS, see *Trichophthicus crenatus*.

MYDÆA.

DESVOIDY, Myodaires, 479, 1830.

VAN DER WULP, Biologia, Dipt., II, 316, def. and table of Mexican species, 1896.

MEADE, Desc. List, 14, 1897.

concinna VAN DER WULP, Biologia, Dipt., II, 317.—Guerrero, Mex.

confinis VAN DER WULP, Biologia, Dipt., II, 319.—Orizaba, Mex.

diaphana WIED., of Chagnon's List, see *Limnophora*.

fasciventris VAN DER WULP, Biologia, Dipt., II, 318.—Tabasco, Mex.

flavicornis COQUILLETT, Proc. U. S. N. M., XXI, 123.—Quebec, Canada; St. Louis, Mo.

leucocephala VAN DER WULP, Biologia, Dipt., II, 318.—Tabasco, Mex.

pansa GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 147; Ditt. del Mess., IV, 24 (both *Spilogaster*).—Mex.

VAN DER WULP, Biologia, Dipt., II, 316, pl. VIII, f. 2.—Guerrero and N. Yucatan, Mex.

obscura VAN DER WULP, Biologia, Dipt., II, 317, pl. VIII, f. 3.—N. Yucatan, Mex.

spermophilæ TOWNSEND, Trans. Amer. Ent. Soc., XXII, 79.—Jamaica, from nestling of *Spermophila* sp.; notes on Anthomyidæ affecting young birds.

SPILOGASTER.

MACQUART, Hist. Nat. Dipt., II, 293, 1835.

RONDANI, Dipt. Ital. Prod., VI, 65, 1877.



- VAN DER WULP, *Biologia*, Dipt., II, 319, 1896, def. and table of Mexican species.
- Recent papers on the European species:
- STEIN, Berl. Ent. Nachricht., XIX, 1893.
- MEADE, Desc. List, 17, 1897.
- CZERNY, Wien. Ent. Zeit., XX, 34, 1901.
- abdit**a GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 147; Ditt. del Mess., IV, 23.—Mex.
- abiens** STEIN, Berl. Ent. Zeitsch., XLII, 193.—Mass., Ontario.
N. J.—Smith Cat.
- amœba** STEIN, see *lysinoc*.
- angelicæ** SCOPOLI, Ent. Carniolica, 880 (*Musca*).—Europe.
GMELIN, Syst. Nat., v, 2844 (*M. dcccptoria*).
SCHRANK, Ins. Austr., 932 (id.).
FALLÉN, Muscides, 78 (*Musca*).
MEIGEN, Syst. Besch., v, 117 (*Anthomyia*).
SCHINER, Fauna Austr., I, 612.
LOEW, in Silliman's Jour., oc. in N. A.
RONDANI, Dipt. Ital. Prod., VI, 85.
OSTEN SACKEN, Berl. Ent. Zeitsch., XXXI, 25, note on eggs.
- ? **anomala** JÆNNICKE, Neue Exot. Dipteren, 69, pl. II, f. 4 (*Mescombrina*).—Cuba.
BRAUER and BERGENSTAMM, Zweifl. d. Kaiserl. Mus., VI, 209, gen. ref., from type with a doubt.
- bysia** WALKER, List, IV, 936 (*Anthomyia*).—Nova Scotia.
STEIN, Die Walk. Anth., 190, type redesc.
- carbonella** ZETTERSTEDT, Dipt. Scand., IV, 1414 (*Aricia*).—N. Europe.
SCHINER, Fauna Austr., I, 608.
White Mts., N. H.—Slosson (det. Coquillett).
- ? **circulatrix** WALKER, Trans. Ent. Soc. Lond., v, 316 (*Aricia*).—Mexico.
STEIN, Die Walk. Anth., 192, type redesc.; gen. ref. with a query.
- copiosa** VAN DER WULP, *Biologia*, Dipt., II, 321.—Guerrero, Mex.
- cothurnata** RONDANI, Dipt. Ital. Prod., VI, 95.—Italy.
STEIN, Berl. Ent. Zeitsch., XLII, 197, oc. in Idaho.
- crepuscularis** STEIN, Berl. Ent. Zeitsch., XLII, 201.—Col.
Note.—In Smith's N. J. Catalogue this species is placed as a synonym of Walker's *Anthomyia palposa*, but Stein has since ascertained from the type that the latter is a *Lispa*.
- demigrans** ZETTERSTEDT, Dipt. Scand., IV, 1699 (*Anthomyia*).—N. Europe.
SCHINER, Fauna Austr., I, 610.
N. J.—Smith Cat.
- diruta** STEIN, Berl. Ent. Zeitsch., XLII, 188.—Pa.
N. J.—Smith Cat.
- discreta** VAN DER WULP, *Biologia*, Dipt., II, 322.—Guerrero, Mex.
- duplicata** MEIGEN, Syst. Besch., v, 92 (*Anthomyia*).—Europe.
DESVOIDY, Myodaires, 498 (*Mydina nigripes*).
SCHINER, Fauna Austr., I, 607.
RONDANI, Dipt. Ital. Prod., VI, 101.
STEIN, Berl. Ent. Zeitsch., XLII, 199, oc. in Ontario and Colorado.
- etesia** GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 147; Ditt. del Mess., IV, 23.—Tuxpango, Mex.
- fulviventris** BIGOT, Annales, 1885, 291.—Cal.
- fulva** BIGOT, Annales, 1885, 289.—Wash.

- fusca* STEIN, Berl. Ent. Zeitsch., XLII, 189.—Kans., Mass., Va., La.
N. J.—Smith Cat.
- hilariformis* STEIN, Berl. Ent. Zeitsch., XLII, 196.—Va., Pa.
- humeralis* ZETTERSTEDT, Dipt. Scand., iv, 1697 (*Anthomyza*); xiv, 6284, oc. in N. Y.—N. Europe and New York.
STEIN, Berl. Ent. Zeitsch., XLII, 192, oc. in Mass.
N. J.—Smith Cat.
- limnophorina* STEIN, Berl. Ent. Zeitsch., XLII, 200.—Pa.
- lysinoë* WALKER, iv, 938 (*Anthomyia*).—Nova Scotia.
STEIN, Berl. Ent. Zeitsch., XLII, 190 (*amaba*); Die Walk. Anth., 201, syn.
—Ida., Mass., Ill. N. J.—Smith Cat. (*amaba*).
- meracula* GIGLIO-TOS, Boll. R. Univ. Torino, viii, No. 147; Ditt. del Mess., iv, 24.—Mex.
- narina* WALKER, List, iv, 933 (*Anthomyia*).—Nova Scotia.
STEIN, Die Walk. Anth., 202, pt. desc. of types.
- nigricans* STEIN, Berl. Ent. Zeitsch., XLII, 198.—Col.
- nigripennis* WALKER, List, iv, 929 (*Anthomyia*).—Martin Falls, Canada.
STEIN, Die Walk. Anth., 203, type redesc.
- nitens* STEIN, Berl. Ent. Zeitsch., XLII, 199.—Mass.
- obscura* STEIN, Berl. Ent. Zeitsch., XLII, 197.—Pa.
- obscurinervis* STEIN, Berl. Ent. Zeitsch., XLII, 199.—Ga.; the male is described on p. 285 of the same work.
- pagana* FABRICIUS, Ent. Syst., iv, 326 (*Musca*); Syst. Antl., 288 (id.).—Europe.
MEIGEN, Syst. Besch., v, 116 (*Anthomyia*).
DESVOIDY, Myodaires, 480 (*Mydæa scutellaris*).
SCHINER, Fauna Austr., i, 611.
RONDANI, Dipt. Ital. Prod., vi, 82.
STEIN, Berl. Ent. Zeitsch., XLII, 192, oc. in Colorado.
N. J.—Smith Cat.; White Mts., N. H.—Slosson; Montreal—Chagnon.
- pansa* GIGLIO-TOS, Boll. R. Univ. Torino, viii, No. 147; Ditt. del Mess., iv, 24.—Mex.
- parvula* VAN DER WULP, Biologia, Dipt., ii, 321.—Guerrero, Mex.
- plumifer* BIGOT, Annales, 1885, 288.—Cuba.
- pubiceps* STEIN, Berl. Ent. Zeitsch., XLII, 194.—Idaho.
- refusa* GIGLIO-TOS, Boll. R. Univ. Torino, viii, No. 147; Ditt. del Mess., iv, 22.—Tuxpango, Mex.
White Mts., N. H.—Slosson (*Limnophora*).
- ? *rescita* WALKER, Trans. Ent. Soc., v, 315 (*Aricia*).—Mex.
STEIN, Die Walk. Anth., 207, type redesc.; gen. ref. with a doubt.
- rubripalpis* VAN DER WULP, Biologia, Dipt., ii, 320.—Guerrero and Morelos, Mex.; Costa Rica.
- scabra* GIGLIO-TOS, Boll. R. Univ. Torino, viii, No. 147; Ditt. del Mess., iv, 25.—Mex.
- sera* GIGLIO-TOS, Boll. R. Univ. Torino, viii, No. 147; Ditt. del Mess., iv, 25.—Mex.
- signatipennis* VAN DER WULP, Biologia, Dipt., ii, 322, pl. viii, f. 6.—Guerrero and Orizaba, Mex.
- signia* WALKER, List, iv, 939 (*Anthomyia*); 940 (*Anthomyia geldria*).—Nova Scotia.
STEIN, Die Walk. Anth., 196, 208, types redesc., syn.
- soccata* WALKER, List, iv, 941 (*Anthomyia*).—Martin Falls, Canada.
STEIN, Die Walk. Anth., 209, redesc.—“Is a *Spilogaster* or an *Aricia*.”
- socialis* STEIN, Berl. Ent. Zeitsch., XLII, 193 and 284.—Ga., N. C., La.

terminalis WALKER, Dipt. Saund., 356 (*Anthomyia*).—U. S.

Note.—Osten Sacken refers to this genus; it may be an oversight, however, as he does not indicate that his reference is different from Walker's.

trigonota VAN DER WULP, Biologia, Dipt., II, 320, pl. VIII, f. 4.—Nicaragua.

uliginosa GALLÉN, Muscides, 81 (*Musca*).—Europe.

MEIGEN, Syst. Besch., v, 121 (*Anthomyia*).

DESVOIDY, Myodaires, 492 (*Rohrella punctata*).

SCHINER, Fauna Austr., I, 609.

RONDANI, Dipt. Ital. Prod., VI, 77.

STEIN, Berl. Ent. Zeitsch., XLII, 192, oc. in III.

uniseta STEIN, Berl. Ent. Zeitsch., XLII, 192.—Conn., Mass., Ontario, Ill.

urbana MEIGEN, Syst. Besch., v, 118 (*Anthomyia*).—Europe.

DESVOIDY, Myodaires, 477 (*Fellca fera*).

SCHINER, Fauna Austr., I, 612.

LOEW, Silliman's Jour., oc. in N. A.

RONDANI, Dipt. Ital. Prod., VI, 86.

STEIN, Berl. Ent. Zeitsch., XLII, 196, oc. in Mass. and Pa.

N. J.—Smith Cat.; White Mts.—Slosson; Montreal—Chagnon.

vespertina FALLÉN, Muscides, 58 (*Musca*).—Europe.

MEIGEN, Syst. Besch., v, 107 (*Anthomyia*).

SCHINER, Fauna Austr., I, 608.

RONDANI, Dipt. Ital. Prod., VI, 93.

STEIN, Berl. Ent. Zeitsch., XLII, 199, oc. in Kans., S. D., Mass., Ga., Ontario, and Ill.

CHARADRELLA.

VAN DER WULP, Biologia, Dipt., II, 341, 1896.

macrosoma VAN DER WULP, loc. cit., pl. VIII, f. 16.—N. Yucatan, Mex.

LIMNOPHORA.

DESVOIDY, Myodaires, 517, 1830.

SCHINER, Fauna Austr., I, 621, 1862.

RONDANI, Dipt. Ital. Prod., VI, 103, 1877.

SCHNABL, Horæ Soc. Ent. Ross., XXIV, 495.

VAN DER WULP, Biologia, Dipt., II, 324, 1896, def. and table of Mexican species.

æquifrons STEIN, Berl. Ent. Zeitsch., XLII, 205.—Idaho, S. D.

N. J.—Smith Cat.

anthrax BIGOT, Annales, 1885, 274.—Mex.

arcuata STEIN, Berl. Ent. Zeitsch., XLII, 201 and 285.—Ga., La.

COQUILLETT, Proc. U. S. N. M., XXII, 256, oc. in D. C. and Porto Rico.

HOWARD, Proc. Wash. Acad. Sci., II, 582, fig. and habits; bred from human excrement.—D. C. and Va.

biquadrata WALKER, List, IV, 963 (*Anthomyia*).—Martin Falls, Canada.

STEIN, Die Walk. Anth., 189, type redesc.

compuncta WIEDEMAN, Zool. Mag., I, 80, 1817 (*Anthomyia*).—Europe.

MEIGEN, Syst. Besch., v, 147 (*Anthomyia*).

SCHINER, Fauna Austr., I, 621.

RONDANI, Dipt. Ital. Prod., VI, 106.

COQUILLETT, Dipt. of Commander Ids., 344, oc. in Bering Id.

contractifrons ZETTERSTEDT, Ins. Lapp., 683 (*Anthomyza*); 669 (var. of *A. arctica*); Dipt. Scand., IV, 1463 (*Aricia*).—N. Europe.

STÆGER, Grœnl. Antl., oc. in Greenland (*Anthomyza arctica*).

LUNDBECK, Dipt. Grœnl., I, 311, oc. in Greenland.

- cyrtoneurina* STEIN, see *narona*.
- debilis* WILLISTON, Trans. Ent. Soc. Lond., 1896, 369.—St. Vincent, W. I.
- delecta* VAN DER WULP, Biologia, Dipt., II, 325.—Guerrero, Mex.
- denudata* HOLMGREN, Ins. Spetsb., 30 (*Aricia*); Ins. Nordgrönl., 101 (*Aricia denudata* and *ranunculi*).—Spitzbergen and Greenland.
STEIN, Wien. Ent. Zeit., XXI, 57, type redesc.; syn.
- diaphana* WIEDEMANN, Zool. Mag., I, 81 (*Anthomyia*).—Europe.
MEIGEN, Syst. Besch., v, 189 (id.).
SCHINER, Fauna Austr., I, 623 (says that Fallén and Zetterstedt had the wrong species under this name).
LOEW, in Silliman's Jour., oc. in N. A.
Montreal—Chagnon (*Mydca*); Axton, N. Y.—M. and H.
- discreta* STEIN, Berl. Ent. Zeitsch., XLII, 204.—Ill.
- exilis* WILLISTON, Trans. Ent. Soc. Lond., 1896, 369.—St. Vincent, W. I.
- ? *exul* WILLISTON, Trans. Ent. Soc. Lond., 1896, 370, pl. XII, f. 122.—St. Vincent, W. I.; may be *Spilogaster*—Will.
- fumipennis* VAN DER WULP, Biologia, Dipt., II, 324, pl. VIII, f. 7.—Guerrero, Mex.
- limbata* BIGOT, Annales, 1885, 271.—Mexico and Chile.
- litorea* FALLÉN, Muscides, 63 (*Musca*).—Europe.
ZETTERSTEDT, Dipt. Scand., IV, 1473 (*Aricia*).
SCHINER, Fauna Austr., I, 622 (says that Meigen's species is different).
White Mts., N. H.—Slosson (det. Coquillett).
- meraca* VAN DER WULP, Biologia, Dipt., II, 325.—Guerrero, Mex.
- narona* WALKER, List, IV, 945 (*Anthomyia*).—Fla.
STEIN, Berl. Ent. Zeitsch., XLII, 203 (*cyrtoneurina*); Die Walk. Anth., 202, syn.—S. D., Kans., Minn., N. Dak.
N. J.—Smith Cat.—“equals *Leucomelina garrula* G. T.?”
- nobilis* STEIN, Berl. Ent. Zeitsch., XLII, 207.—Alaska.
Alaska, several places—Coq.
- normata* BIGOT, Annales, 1885, 272.—Mex.
- pauvilla* HOLMGREN, Ins. Spetsb., 32; Ins. Nordgrönl., 101 (both *Aricia*).—Spitzbergen and Greenland.
STEIN, Wien. Ent. Zeit., XXI, 61, type redesc.
- rufipes* BIGOT, Annales, 1885, 272.—Mex.
- socia* VAN DER WULP, Biologia, Dipt., II, 326.—Guerrero, Mex.
- stygia* MEIGEN, Syst. Besch., v, 155 (*Anthomyia*).—Europe.
SCHINER, Fauna Austr., I, 624, no desc.—“Weibchen einer *Hydrotæa*?”
LOEW, in Silliman's Jour., oc. in N. A.
- surda* ZETTERSTEDT, Dipt. Scand., IV, 1476 (*Aricia*).—Europe.
RONDANI, Dipt. Ital. Prod., VI, 105.
STEIN, Berl. Ent. Zeitsch., XLII, 208, oc. in Minn., Ida., S. D., Ontario.
Montreal—Chagnon.
- triangulifera* ZETTERSTEDT, Ins. Lapp., 680 (*Anthomyza*); Dipt. Scand., IV, 1467 (*Aricia*).—N. Europe.
STÆGER, Grönl. Antl., 364, oc. in Greenland.
- trigonifera* ZETTERSTEDT, Ins. Lapp., 669 (*Anthomyza*); Dipt. Scand., IV, 1458 (*Aricia*).—N. Europe.
STÆGER, Grönl. Antl., 364, oc. in Greenland.
- umbrosa* VAN DER WULP, Biologia, Dipt., II, 326.—Costa Rica.

LEUCOMELINA.

MACQUART, Dipt. Exot., Suppl. IV, 261, 1850.

BIGOT, Annales, 1888, 263, notes.

- VAN DER WULP, *Biologia*, Dipt., II, 326. def. and table of Mexican species, 1896.
- corvina** GIGLIO-TOS, *Boll. R. Univ. Torino*, VIII, No. 147; *Ditt. del Mess.*, IV, 19.
—Solco and Mexico City, Mex.
- VAN DER WULP, *Biologia*, Dipt., II, 328.—Mexico, common.
- deleta** VAN DER WULP, *Biologia*, Dipt., II, 329.—Guerrero, Mex.
- garrula** GIGLIO-TOS, *Boll. R. Univ. Torino*, VIII, No. 147; *Ditt. del Mess.*, IV, 18.—Tuxpango, Mex.
- VAN DER WULP, *Biologia*, Dipt., II, 330. pl. VIII, f. 9.—Guerrero, Mex.
- Fla., several places—Johnson. See *Limnophora narona*.
- minuscula** VAN DER WULP, *Biologia*, Dipt., II, 330.—Vera Cruz and Guerrero, Mex.
- pica** MACQUART, *Dipt. Exot.*, Suppl. IV, 262, pl. XXIV, f. 3.—Brazil.
- GIGLIO-TOS, *Ditt. del Mess.*, IV, 18.—Solco and Orizaba, Mex.
- VAN DER WULP, *Biologia*, Dipt., II, 328, pl. VIII, f. 8.—Guerrero and Orizaba, Mex.
- BIGOT, *Annales*, 1885, 264 (*Limnophora* ? *pica*).
- sæva** WIEDEMANN, *Auss. Zw.*, II, 430 (*Anthomyia*).—Brazil.
- MACQUART, *Dipt. Exot.*, II, 3, 165, pl. XXII, f. 6 (*Limnophora elegans*).—Guiana.
- SCHINER, *Novara*, 300 (*Spilogaster*), syn.—S. A.
- VAN DER WULP, *Biologia*, Dipt., II, 329.—Guerrero and Tabasco, Mex.
- strigata** GIGLIO-TOS, *Boll. R. Univ. Torino*, VIII, No. 147; *Ditt. del Mess.*, IV, 19.—Solco, Mex.

PROBOSCIDOMYIA.

- BIGOT, *Bull. Soc. Ent. France*, 1883, 35; *Annales*, 1885, 266.
- TOWNSEND, *Trans. Amer. Ent. Soc.*, XIX, 293, 1893, part. quoted.
- siphonina** BIGOT, *Annales*, 1885, 267.—Rocky Mts.

ANTHOMYIA.

- MEIGEN, *Illiger's Mag.*, II, 281, 1803; *Syst. Besch.*, V, 81, 1826.
- SCHINER, *Fauna Austr.*, I, 633, 1862.
- RONDANI, *Dipt. Ital. Prod.*, VI, 150, 1877.
- MEADE, *Ent. Mo. Mag.*, 1882, 109; *Desc. List*, 42, 1897.
- acra** WALKER, see *Homalomyia manicata*.
- æmene** WALKER, see *Hylemyia*.
- alaba** WALKER, see *Chortophila*.
- albicincta** FALLÉN, *Muscides*, 73 (*Musca*).—Europe.
- MEIGEN, *Syst. Besch.*, V, 161 (*Anthomyia*).
- SCHINER, *Fauna Austr.*, I, 648 (id.).
- OSTEN SACKEN, *Cat.*, 170, oc. in Nebr. and Texas, on authority of "Loew in litt." (*Atomogaster*).
- STEIN, *Berl. Ent. Zeitsch.*, XLII, 208, oc. in Ida., S. D., Mass., Va., Ill.
- MEADE, *Desc. List*, 43.
- N. J.—Smith Cat.
- alcathoë** WALKER, see *Hylemyia*.
- alone** WALKER, see *Canosia ausoba*.
- anane** WALKER, *List*, IV, 927.—Martin Falls, Canada.
- STEIN, *Die Walk. Anth.*, 186, type is a female *Chortophila*, unrecognizable without the male. Hence the recorded occurrence of this species in N. J. (Smith Cat.) and Montreal (Chagnon) may be set down as erroneous.

- angustifrons* MEIGEN, see *Phorbia fusciceps*.
anthracina BIGOT, Annales, 1885, 298.—Rocky Mts.; may be a variety of *monticola*.
apina WALKER, see *Prosalpia silvestris*.
ausoba WALKER, see *Canosia*.
badia WALKER, see *Phorbia*.
barpana WALKER, see *Aricia*.
brassicæ BOUCHÉ, see *Phorbia*.
brixia WALKER, see *Eustalomyia*.
bysia WALKER, see *Spilogaster*.
campestris DESVOIDY, Myodaires, 585 (*Egle*).—Europe and N. A.—Philadelphia.
ceparum MEIGEN, see *Phorbia*.
communis WALKER, see *Euryomma*.
dejeanii DESVOIDY, Myodaires, 558 (*Neria*).—Philadelphia.
determinata WALKER, see *Phorbia muscaria*.
donuca WALKER, see *Prosalpia silvestris*.
dorsimaculata VAN DER WULP, Biologia, Dipt., II, 336.—Guerrero, Mex.
? dubia CURTIS, Ins. Ross's Exped., lxxix.—Arctic America.
 Gen. ref. with a query in O. S. Cat.
elongata VAN DER WULP, Biologia, Dipt., II, 335, pl. VIII, f. 14.—Guerrero, Mex.
geldria WALKER, see *Spilogaster signia*.
idyla WALKER, List, IV, 948.—Martin Falls, Canada.
 STEIN, Die Walk. Anth., 197, says the types are a mixture of three species, one female *Hydrotæa*, one female *Ophyra leucostoma*, one unrecognizable.
isura WALKER, see *Homalomyia canicularis*.
lata WALKER, see *Canosia*.
latitarsis ZETTERSTEDT, Dipt. Scand., v, 1754 (*Anthomyza*).—N. Europe.
 SCHINER, Fauna Austr., I, 635.
 HAGEN, Canad. Ent., XIII, 48 (identified by Meade from N. H. and N. Y.).
 White Mts., N. H.—Slosson.
? leucoprocta WIEDEMANN, Auss. Zweif., II, 433.—W. I.
 Gen. ref. with a query in O. S. Cat.
lipsia WALKER, see *Hylemyia*.
luteva WALKER, see *Hyetodesia*.
lysinoë WALKER, see *Spilogaster*.
micropteryx THOMSON, Eugen. Resa, 555.—Cal.
monticola BIGOT, Annales, 1885, 297.—Rocky Mts.
 See also *anthracina*.
mystacea COQUILLET, Proc. Wash. Acad. Sci., II, 447.—Juneau, Alaska.
narina WALKER, see *Spilogaster*.
narona WALKER, see *Limnophora*.
nigra WALKER, see *Muscina similis*.
nigrifrons WALKER, see *Trichophthicus*.
nigripennis WALKER, List, IV, 929.—Martin Falls, Canada.
ochripes THOMSON, Eugen. Resa, 553.—Cal.
ochrogaster THOMSON, Eugen. Resa, 557.—Cal.
oculifera BIGOT, Annales, 299.—Baltimore, Md.
omole WALKER, see *Muscina*.
opalina WALKER, see *Ophyra leucostoma*.
palposa WALKER, see *Lispa*.
perrima WALKER, see *Phorbia fusciceps*.

pluvialis LINNÉ, Syst. Nat., 10th ed. (*Musca*); Fauna Suec., 2d edit., 455 (id.)—Europe.

DEGEER, Mém. Hist. Nat. Ins., vi, 14 (id.).

FABRICIUS, Spec. Ins., ii, 443 (id.); Ent. Syst., iv, 329 (id.); Syst. Antl., 304 (id.).

FALLÉN, Muscides, 68 (id.).

LATREILLE, Gen. Crust. et Ins., 346; Cons. Gén., 444.

GEOFFROY, Ins., ii, 529.

MEIGEN, Syst. Besch., v, 163.

SCHINER, Fauna Austr., i, 647.

RONDANI, Dipt. Ital. Prod., vi, 155.

MEADE, Ent. Mo. Mag., Apr., 1878, oc. in N. A.; Desc. List, 42.

STEIN, Berl. Ent. Zeitsch., XLII, 208, oc. in Ida., Mass., La., Pa.

N. J.—Smith Cat.

pratricula PANZER, Fauna German., cviii, 12.—Europe.

MEIGEN, Syst. Besch., v, 163.

ZETTERSTEDT, Dipt. Scand., iv, 1559 (*Aricia praticola*).

SCHINER, Fauna Austr., i, 648.

MEADE, Desc. List, 43.

N. J.—Smith Cat.

protrita WALKER, see *Sarcophaga*.

pylone WALKER, see *Hycetodesia lucorum*.

radicum LINNÉ, Fauna Suec., 2d edit., 454 (*Musca*); Syst. Nat., 12th edit., ii, 992 (id.).—Europe; in the former he says, "Habitat in radicibus raphani."

GMELIN, Syst. Nat., v, 2846 (id.).

FABRICIUS, Spec. Ins., ii, 443 (id.); Syst. Antl., 300 (id.).

FALLÉN, Muscides, 72 (id.).

WIEDEMANN, Zool. Mag., i, 78.

MEIGEN, Syst. Besch., v, 168.

SCHINER, Fauna Austr., i, 645.

RONDANI, Dipt. Ital. Prod., vi, 157.

MEADE, Desc. List, 43.

American references:

HOLMGREN, Ins. Nordgrœn., 102 (*Aricia tristicula*).—Greenland. [Stein, Wien. Ent. Zeit., XXI, 64, from type.]

MEADE, Ent. Mo. Mag., Apr., 1878, oc. in N. A.

LINTNER, 1st N. Y. Rept., 191–194, bibl., desc., habits, etc.

SLINGERLAND, Bull. 78, Cornell Ex. Station, full discussion and bibliography. Larvæ in roots of cabbage and radish; rare in N. A.

STEIN, Berl. Ent. Zeitsch., XLII, 208, oc. in Ida., N. Y., Ont., Mass., Pa.

COQUILLETT, Proc. Wash. Acad. Sci., ii, 447, oc. in Alaska.

LUNDBECK, Dipt. Grœn., ii, 283, oc. in Greenland.

N. J.—Smith Cat.; White Mts., N. H.—Slosson; Province of Quebec—Fyles.

raphani HARRIS, see *Phorbia brassicae*.

ruficeps MEIGEN, see *Phorbia*.

rugia WALKER, see *Hycetodesia*.

scatophagina ZETTERSTEDT, Ins. Lapp., 677 (*Anthomyza*); Dipt. Scand., iv, 1510 (*Aricia*).—N. Europe.

STEGER, Grœn. Antl., oc. in Greenland.

SCHINER, Fauna Austr., i, 637.

segmentata VAN DER WULP, Biologia, Dipt., ii, 336.—Guerrero, Mex.

sigma WALKER, see *Spilogaster*.

similis WALKER, see *Muscina*.

similis FITCH, Trans. N. Y. State Agl. Soc., 1855, xv, 533; 1st and 2d Repts., 1856, 301, desc. (all *Hylemyia*).—N. Y.

LINTNER, 1st N. Y. Rept., 202, notes.

soccata WALKER, List, see *Spilogaster*.

spinosa WALKER, List, iv, 926.—Martin Falls, Canada.

Type unrecognizable—Stein.

striolata FALLÉN, of Stæger, see *Phorbia fugax*.

tarsata VAN DER WULP, Tijdschr. v. Ent., x, 151, pl. v, f. 6.—Wis.

teate WALKER, see *Hydrophoria*.

tinia WALKER, see *Phorbia fusciceps*.

trifilis GIGLIO-TOS, Boll. R. Univ. Torino, viii, No. 147; Ditt. del Mess., iv, 28.—Coscom, Mex.

troëne WALKER, see *Hyetodesia*.

uxama WALKER, List, iv, 948.—Martin Falls, Canada.

STEIN, Die Walk. Anth., 215, type examined; is an unrecognizable female *Homalomyia*.

viana WALKER, see *Phorbia fusciceps*.

zeæ RILEY, see *Phorbia fusciceps*.

HYDROPHORIA.

DESVOIDY, Myodaires, 503, 1830.

RONDANI, Dipt. Ital. Prod., vi, 168, 1877.

VAN DER WULP, Biologia, Dipt., ii, 332, 1896, def. and table of Mexican species.

MEADE, Desc. List, 29, 1897.

ambigua FALLÉN, Muscides, 56 (*Musca*).—Europe.

MEIGEN, Syst. Besch., v, 192 (*Anthomyia*).

ZETTERSTEDT, Dipt. Scand., xii, 4719 (*Aricia*).

SCHINER, Fauna Austr., i, 612 (*Spilogaster*).

RONDANI, Dipt. Ital. Prod., vi, 175.

STEIN, Berl. Ent. Zeitsch., xlii, 208, oc. in Mass. and Ill.

COQUILLET, Proc. Wash. Acad. Sci., ii, 447, oc. in Alaska.

? *calopus* BIGOT, Annales, 1885, 275.—Mex. Query by Bigot.

collaris VAN DER WULP, Biologia, Dipt., ii, 333, pl. viii, f. 11.—Guerrero, Mex.

divisa MEIGEN, Syst. Besch., v, 99 (*Anthomyia*).—Europe.

ZETTERSTEDT, Dipt. Scand., iv, 1415 (*Aricia ambigua*, in part); xii, 4723 (*Aricia*).

SCHINER, Fauna Austr., i, 609 (*Spilogaster*).

RONDANI, Dipt. Ital. Prod., vi, 175 (under *ambigua*).

MEADE, Desc. List, 30.

STEIN, Berl. Ent. Zeitsch., xlii, 208.—Ida., Wash., Ill.

flavipalpis VAN DER WULP, Biologia, Dipt., ii, 334.—Guerrero, Mex.

nigricauda BIGOT, Annales, 1885, 276.—Rocky Mts.

? *pictipes* BIGOT, Annales, 1885, 275.—Mex. Query by Bigot.

plumosa VAN DER WULP, Biologia, Dipt., ii, 332.—Guerrero, Mex.

teate WALKER, List, iv, 931 (*Anthomyia*).—Martin Falls, Canada.

STEIN, Die Walk. Anth., 213, type redesc.

transversalis VAN DER WULP, Biologia, Dipt., ii, 334, pl. viii, f. 12.—Guerrero, Mex.

HYLEMYIA.

DESVOIDY, Myodaires, 550, 1830.

SCHINER, Fauna Austr., i, 626, 1862.

- RONDANI, Dipt. Ital. Prod., vi, 176, 1877.
- VAN DER WULP, Biologia, Dipt., ii, 337, 1896, def. and table of Mexican species.
- MEADE, Descriptive List, 32, 1897.
- abrepta** GIGLIO-TOS, Boll. R. Univ. Torino, viii, No. 147; Ditt. del Mess., iv, 30.—Mex.
- æmene** WALKER, List, iv, 937 (*Anthomyia*).—Nova Scotia.
- STEIN, Die Walk. Anth., 186, pt. desc. of type.
- alcathoë** WALKER, List, iv, 937 (*Anthomyia*).—Nova Scotia.
- BIGOT, Annales, 1885, 299 (*flavicaudata*).—Wash. [J. M. A.]
- STEIN, Berl. Ent. Zeitsch., XLII, 211 (*strigata*).—Ida., Wash. [Syn. by Stein, from Walker's type.]
- COQUILLETT, Proc. Wash. Acad. Sci., ii, 448, oc. in Alaska and N. H., and syn. of *strigata*, from desc.
- Montreal—Chagnon.
- anane** WALKER, of the Smith Cat. and Chagnon's Montreal list, is a mistake, being an erroneous identification of *Anthomyia anane* WALKER, which is an unrecognizable *Phorbia*.
- angusta** STEIN, Berl. Ent. Zeitsch., XLII, 218 and 285.—Col. and Germany.
- brunneifrons** ZETTERSTEDT, Ins. Lapp., 690 (*Anthomyza*); Dipt. Scand., iv, 1660 (id.).—N. Europe.
- LUNDBECK, Dipt. Grœnl., i, 313, oc. in Greenland.
- coarctata** FALLÉN, Muscides, 84 (*Musca*).—Europe.
- MEIGEN, Syst. Besch., v, 130 (*Anthomyia*).
- ZETTERSTEDT, Ins. Lapp., 666 (*Anthomyza*); Dipt. Scand., iv, 1644 (id.).
- SCHINER, Fauna Austr., i, 629.
- RONDANI, Dipt. Ital. Prod., vi, 195.
- STEIN, Berl. Ent. Zeitsch., XLII, 215, oc. in Col.
- MEADE, Desc. List, 37.
- deceptiva** FITCH, see *Phorbia fusciceps*.
- depressa** STEIN, Berl. Ent. Zeitsch., XLII, 214.—Pa.
- fabricii** HOLMGREN, of Coquillett, see *Phorbia*.
- flavicans** STEIN, Berl. Ent. Zeitsch., XLII, 213.—Idaho.
- flavicaudata** BIGOT, see *alcathoë*.
- frontata** ZETTERSTEDT, Ins. Lapp., 699 (*Anthomyza*); Dipt. Scand., 30, 1453 (*Aricia*).—N. Europe.
- STÆGER, Grœnl. Antl., 363, oc. in Greenland.
- inornata** STEIN, Berl. Ent. Zeitsch., XLII, 220.—Mass.
- johnsoni** STEIN, Berl. Ent. Zeitsch., XLII, 215, 285.—Pa. and La.
- juvenilis** STEIN, Berl. Ent. Zeitsch., XLII, 211.—Pa.
- HOWARD, Proc. Wash. Acad. Sci., ii, 584, oc. in Md.; bred from human excrement.
- levipes** GIGLIO-TOS, Boll. R. Univ. Torino, viii, No. 147; Ditt. del Mess., iv, 30.—Mex.
- linearis** STEIN, Berl. Ent. Zeitsch., XLII, 219.—Minn.
- COQUILLETT, Proc. Wash. Acad. Sci., ii, 449, oc. in Alaska.
- lipsia** WALKER, List, iv, 928 (*Anthomyia*); 971 (*Cenosia substituta*).—Martin Falls, Canada; Mass.
- STEIN, Berl. Ent. Zeitsch., XLII, 209, full desc.; Die Walk. Anth., 200, 211, syn.—Mass., Pa., Me., Ill.
- N. J.—Smith Cat.; Montreal—Chagnon; White Mts., N. H.—Slosson.
- Note*.—The recognition of *substituta* as a *Caricca* from N. J. (Smith Cat.) and White Mts., N. H. (Slosson), is of course totally wrong.

marginata STEIN, Berl. Ent. Zeitsch., XLII, 221.—Col.

Sitka—Coquillett.

monticola VAN DER WULP, Biologia, Dipt., II, 338.—Guerrero, Mex.

pici MACQUART, Annales Soc. Ent. France, 1853, 657, pl. XX, f. 2 (*Aricia*).—San Domingo; the larva lives in a swelling on the wing of *Picus striatus*.

LOEW, Wien. Ent. Monatschr., v, 41 (*angustifrons*).—Cuba. [O. S. Cat., 167, on authority of "Loew in litt."]

probata WALKER, Trans. Ent. Soc., n. ser., v, 38.—Mex.

STEIN, Die Walk. Anth., 204, examined type; is a Tachinid near *Morinia*.

relata STEIN, Die Walk. Anth., 206.—U. S.

rhodina GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 147; Ditt. del Mess., IV, 31.
—Tuxpango, Mex.

setiventris STEIN, Berl. Ent. Zeitsch., XLII, 216.—Idaho.

similis FITCH, see *Anthomyia*.

simpla COQUILLETT, Proc. Wash. Acad. Sci., II, 450.—Sitka, Alaska.

spiniiventris COQUILLETT, Proc. Wash. Acad. Sci., II, 449.—Popof Id., Alaska.

strigata STEIN, see *alcalthoë*.

"**tarsata** SIK." is a name mentioned by Hagen, Canad. Ent., XIII, 49, as given by Loew to specimens from N. Y. and Ill. in the collection at Harvard. I do not know what it means.

tenuirostris VAN DER WULP, Biologia, Dipt., II, 337, pl. VIII, f. 15.—Guerrero, Mex.

testacea STEIN, Berl. Ent. Zeitsch., XLII, 208.—Idaho.

urbica VAN DER WULP, Biologia, Dipt., II, 338.—Mexico City.

variata FALLÉN, Muscides, 59 (*Musca*).—Europe.

MEIGEN, Syst. Besch., v, 97 (*Anthomyia*).

ZETTERSTEDT, Dipt. Scand., IV, 1418 (*Aricia*).

SCHINER, Fauna Austr., I, 628.

RONDANI, Dipt. Ital. Prod., VI, 188.

MEADE, Desc. List, 34.

STEIN, Berl. Ent. Zeitsch., XLII, 218, oc. in S. D., La., Ida., Mass., Ont., Va., Md.

EUSTALOMYIA.

KOWARZ, Verh. Zool.-Bot. Ges. Wien., 1873, 461.

MEADE, Desc. List, 37, 1897.

brixia WALKER, List, IV, 946 (*Anthomyia*).—Nova Scotia.

STEIN, Die Walk. Anth., 190, type redesc.; may be identical with *E. histrio* ZETT. of Europe.

vittipes ZETTERSTEDT, Dipt. Scand., IV, 1649 (*Anthomyza*).—N. Europe.

STEIN, Berl. Ent. Zeitsch., XLII, 222.—Pa.

N. J.—Smith Cat.

PROSALPIA.

POKORNY, Wien. Ent. Zeit., 1893, 54.

arelate WALKER, List, IV, 962 (*Eriphia*); 965 (*Eriphia pretiosa*).—Both Martin Falls, Canada.

STEIN, Die Walk. Anth., 187, 204, syn. and type redesc.

? COQUILLETT, Proc. Wash. Acad. Sci., II, 451, oc. in Alaska, several places (*Eriphia*). Query by J. M. A.

silvestris FALLÉN, Muscides, 70 (*Musca*).—N. Europe.

ZETTERSTEDT, Dipt. Scand., IV, 1527 (*Aricia*).

? WALKER, List, IV, 927, 946, 962 (*Anthomyia apina*, *Anthomyia donuca*, *Eriphia grisea*).—Martin Falls, Canada; Nova Scotia: Martin Falls, Canada.

STEIN, Die Walk. Anth., 186, 195, 197, syn., with a little doubt in all the cases.

Note.—The *Hylemyia grisea* WALK., of Mrs. Slosson's White Mountain list, may not be the same species.

EREMOMYIA.

STEIN, Berl. Ent. Zeitsch., XLII, 223, 1898.

apicalis STEIN, Berl. Ent. Zeitsch., XLII, 227.—Idaho.

cylindrica STEIN, Berl. Ent. Zeitsch., XLII, 226.—Mass., Ind., Minn.

humeralis STEIN, Berl. Ent. Zeitsch., XLII, 224.—Ida., Ill.

incompleta STEIN, Berl. Ent. Zeitsch., XLII, 228.—Minn.

HAMMOMYIA.

RONDANI, Dipt. Ital. Prod., vi, 236, 1877.

CHARBONNIER, Ent. Mo. Mag., 1901, 48, discusses parasitism of European spp. of this genus on burrowing bees; see Hendel, Wien. Ent. Zeit., XX, 150.

maculata STEIN, Berl. Ent. Zeitsch., XLII, 228.—Idaho.

unilineata ZETTERSTEDT, Ins. Lapp., 675 (*Anthomyza*); Dipt. Scand., iv, 1518 (*Aricia*).—N. Europe.

SCHINER, Fauna Austr., i, 638 (*Anthomyia*).

STEIN, Berl. Ent. Zeitsch., XLII, 230, oc. in Idaho.

DOLICHOGLOSSA.

STEIN, Berl. Ent. Zeitsch., XLII, 230, 1898.

americana STEIN, loc. cit., and p. 286.—S. D.

PHORBIA.

DESVOIDY, Myodaires, 559, 1830.

MACQUART, Hist. Nat. Dipt., ii, 323, 1835 (*Chortophila*).

RONDANI, Dipt. Ital. Prod., vi, 196, 1877 (id.).

VAN DER WULP, Biologia, Dipt., ii, 339, 1896 (*Phorbia* and *Chortophila*).

MEADE, Desc. List, 43 and 47, 1897 (*Phorbia* and *Chortophila*).

TOWNSEND, Trans. Amer. Ent. Soc., XIX, 293, 1892, notes.

Note.—Van der Wulp, and Meade following him, make a distinction between *Phorbia* and *Chortophila* in that the former has the abdomen narrow and depressed and in the latter it is cylindrical. Stein, however, in Berl. Ent. Zeitsch., XLII, 231, recognizes the equivalence of the two names, although adopting *Chortophila*, the later.

acra WALKER, of Mrs. Slosson's White Mt. list, is an error; see *Homalomyia manicata*.

alaba WALKER, List, iv, 948 (*Anthomyia*).—N. A.

STEIN, Die Walk. Anth., 186, pt. desc. of type (*Chortophila*).

badia WALKER, List, iv, 950 (*Anthomyia*).—Martin Falls, Canada.

STEIN, Die Walk. Anth., 188, type redesc. (*Chortophila*).

betarum LINTNER, 1st N. Y. Rept., 203, 209, fig. (*Chortophila*).—N. Y.; the larvæ mine in beet leaves.

biciliata COQUILLET, Proc. Wash. Acad. Sci., ii, 451.—Berg Bay, Alaska.

brassicæ BOUCHÉ, Naturgesch. d. Garten-Insekten, 131, 1833; same, 1834, p. 73 (both *Anthomyia*).—Germany; larvæ in roots of cabbage.

MEIGEN, Syst. Besch., v, 165, 1826 (*Anthomyia floralis* FALLÉN).

MACQUART, Hist. Nat. Dipt., ii, 326, 1835 (*Chortophila floccosa*).

- ZETTERSTEDT, Dipt. Scand., iv, 1536 (*Aricia floralis* MEIG. non FALLÉN).
 HARRIS, Cat. Animals of Mass., 80, 1835; Ins. Inj. to Vegetation, 1841, 494 (*Anthomyia raphani*).—Mass.; larvæ in radishes.
 CURTIS, Farm. Insects, 1860, 141, fig. (*Anthomyia radicum* LINNÉ).
 SCHINER, Fauna Austr., I, 646 (*Anth. floralis* MEIG., from a Zetterstedt specimen).
 FITCH, 11th N. Y. Rept., 59-61 and 40-43 (*Anth. raphani* and *brassicæ*).
 LINTNER, 1st N. Y. Rept., 184-191, habits, figs., etc.; 5th Rept., 157, remedies.—N. Y.
 RILEY, Dept. Agric. Rept., 1884, 319-321, life hist., etc.; pl. viii, f. 5 (*Anthomyia*).
 SLINGERLAND, Bull. 78, Cornell Univ. Ag'l Experiment Station, 1894: an admirable treatise on this insect from the biological, economic and systematic standpoints; many illustrations, full bibliography, etc. Perhaps the best entomological bulletin yet issued from an American agricultural experiment station.
 MEADE, Desc. List Brit. Anth., 48 (*floccosa*).—England.
 FLETCHER, Rept. Ent. and Bot., 1898, larvæ in turnips in Alberta.
 STEIN, Berl. Ent. Zeitsch., XLII, 236, oc. in Ont. and Mass. (*Chortophila floccosa*).
 CHITTENDEN, Bull. 33, n. ser., Div. of Ent., 80, larvæ in celery.
Note.—This species, commonly called the Cabbage Maggot, infests in its larval stage the roots of cabbage, radish, cauliflower, turnip, winter cress, hedge mustard, celery, and doubtless other plants.
ceparum MEIGEN, Syst. Besch., vi, 376, 1830 (*Anthomyia*).—Europe; larvæ infesting onions.
 BOUCHÉ, Naturgeschichte d. Garten-Insekten, I, 73 (id.).
 SCHINER, Fauna Austr., I, 643 (as syn. of *Anth. antiqua* MEIG.).
 FITCH, 11th N. Y. Rept., 487-494 (sep. 31-38), habits, etc. (*Anthomyia*).—N. Y.
 WALSH, Amer. Entomologist, II, 110, fig. 72 (id.).
 LINTNER, 1st N. Y. Rept., 172-181, bibliog., habits, remedies, etc.
 SLINGERLAND, Bull. 78, Cornell Univ. Ag'l Experiment Station, 495, figs.; biology, desc., etc.—N. Y.
 SMITH, Ent. News, viii, 101-104; habits, remedies, etc.
 N. J.—Smith Cat. (*antiqua*).
cilicrura RONDANI, see *fusciceps*.
[cilioraca], mentioned by HAGEN, Canad. Ent., XIII, 50, as recognized from N. A. by Loew, must be only a misprint for *cilicrura*.
cinerella FALLÉN, Muscides, 77 (*Musca*).—N. Europe.
 ZETTERSTEDT, Ins. Lapp., 686 (*Anthomyza*); Dipt. Scand., iv, 1611 (*Aricia*).
 RONDANI, Dipt. Ital. Prod., vi, 220.
 MEADE, Desc. List, 45 (*Chortophila*).
 STEIN, Berl. Ent. Zeitsch., XLII, 235, oc. in Ia., Ida., S. D., Mass., Ont., Ill. (id.).
 LUNDBECK, Dipt. Grœnl., II, 284, oc. in Greenland (id.).
 WEBSTER, Canad. Ent., 1900, 212, reared from wheat plants in Ohio.
 HOWARD, Proc. Wash. Acad. Sci., II, 583, fig. and habits; bred from human excrement in D. C. and Va.
 N. J.—Smith Cat.; Montreal—Chagnon (both *Chortophila*).
fabricii HOLMGREN, Ins. Nordgrœnl., 101 (*Aricia*).—Greenland.
 COQUILLETT, Proc. Wash. Acad. Sci., II, 451, oc. in Alaska and White Mts., N. H. (*Hylemyia*).

LUNDBECK, Dipt. Grœnl., II, 285, oc. in Greenland.

STEIN, Wien. Ent. Zeit., XXI, 58, type redesc. (*Chortophila*).

floccosa MACQUART, see *brassica*.

fugax MEIGEN, Syst. Besch., v, 147 (*Anthomyia*).—Europe.

SCHINER, Fauna Austr., I, 646 (id.).

STÆGER, Grœnl. Antl., 355, 42 (*Anthomyia striolata* FALLÉN), oc. in Greenland.

SCHIÖDTE, Tillag til Rink's Grœnland, etc., 69, oc. in Greenland (id.).

STROBL, Anthomyidæ Steiermarks, 206 (*Anthomyia*).

LUNDBECK, Dipt. Grœnl., II, 284, syn., and oc. in Greenland.

fusciceps ZETTERSTEDT, Dipt. Scand., IV, 1552 (*Aricia*).—Denmark.

WALKER, List, IV, 949, 950, 951, 964, 966 (*Anthomyia tinia*, *perrima*, *viana*, *Eriphia marginata*, and ? *Dialyta cupreifrons*).—All Martin Falls, except *viana*, from Nova Scotia. Syn. by Stein, from types; that of *cupreifrons* is a little doubtful.

FITCH, Trans. N. Y. Ag'l Soc., xv, 1855, 533; 1st and 2d Repts., 1856, 301, pl. I, f. 3 (*Hylemyia deceptiva*).—N. Y.

RONDANI, Att. Soc. Ital. Sci. Nat., IX, 1866, 165; Dipt. Ital. Prod., VI, 213 (*Chortophila cilicrura*).

RILEY, 1st Mo. Rept., 154, figs.; larvæ attack seed-corn when sprouting (*Anthomyia zœa*).—N. J. Desc. quoted in Gen. Index to Mo. Repts., p. 89.

RILEY, 9th Mo. Rept., 92, figs.; larvæ live on eggs of Rocky Mt. locust (*Anthomyia radicum*, var. *calopteni*).—Minn.

? RILEY, PACKARD, and THOMAS, 1st Rept. U. S. Ent. Comm., 285–289, figs. and desc.; larvæ devour eggs of Rocky Mt. locust. Referred to *angustifrons* MEIG., which Rondani (Dipt. Ital. Prod., VI, 216) regards as the first name of *fusciceps*.

HAGEN, Canad. Ent., XIII, 49, reports *Hylemyia deceptiva* in the Harvard collection.

LINTNER, 1st N. Y. Rept., 199–202, fig. and notes (*Phorbia* ? *deceptiva* and *zœa*); 181–184, habits, fig., etc. (*cilicrura*).

HOWARD, Ins. Life, VI, 372, records as *parasite* of *Loxostege sticticalis*, the sugar-beet web-worm (mentioned as *P. fuscipes*, corrected Ins. Life, VII, 278); VII, 429, note on injury to wax beans by larvæ, in Wis.

COQUILLETT, Ins. Life, VI, 372, syn. of *deceptiva*, from type.

SLINGERLAND, Bull. 78, Cornell Univ. Experiment Station, 499–502, habits, syn., etc.; larvæ feed in cabbage, radish, onion, beans, potatoes, and hedge mustard.

HOWARD, Proc. Wash. Acad. Sci., II, 584, habits; reared from human excrement.—D. C., Va., Md.

CHITTENDEN, Bull. 33, II, ser., Div. of Ent., 84, figs., affecting the planted seed of beans and peas.

CHITTENDEN, Bull. 43, Div. of Ent., 68–70, biol., figs., etc. (*Pegomyia*). The Seed-Corn Maggot. Also lives in roots of beet.

N. J.—Smith Cat.; Montreal—Chagnon; White Mts., N. H.—Slosson; Fla.—Johnson; Beulah, N. M.—Skinner.

Note.—The *Phorbia perrima* from White Mts., in Mrs. Slosson's list, must be an erroneous determination.

fuscisquama VAN DER WULP, Biologia, Dipt., II, 340.—Guerrero, Mex.

icterica HOLMGREN, Ins. Nordgrœnl., 102 (*Aricia*).—Greenland.

LUNDBECK, Dipt. Scand., II, 286.—Greenland.

lævis STEIN, Berl. Ent. Zeitsch., XLII, 231 (*Chortophila*).—Mass.

N. J.—Smith Cat. (id.).

- latipennis** ZETTERSTEDT, Ins. Lapp., 676 (*Anthomyza*); Dipt. Scand., iv, 1509 (*Aricia*).—N. Europe.
 STEIN, Berl. Ent. Zeitsch., XLII, 235, oc. in Mass. and Pa. (*Chortophila*).
lupini COQUILLETT, Ent. News, XII, 206.—Los Angeles Co., Cal.; bred from stems of *Lupinus albus*.
mæsta HOLMGREN, Ins. Nordgrœnl., 102 (*Aricia*).—N. Greenland.
 LUNDBECK, Dipt. Grœnl., II, 286.—Greenland.
 STEIN, Wien. Ent. Zeit., XXI, 59, type redesc. (*Chortophila*); occurs also at Genthin, Prussia.
morosa VAN DER WULP, Biologia, Dipt., II, 339.—Mexico City.
muscaria FABRICIUS, Ent. Syst., IV, 395 (*Stomyrrys*); Syst. Antl., 282 (id.).—Europe.
 ZETTERSTEDT, Ins. Lapp., 683 (*Anthomyza brevicornis*); Dipt. Scand., iv, 1534 (*Aricia brevicornis*). [Stein.]
 SCHINER, Fauna Austr., I, 644 (*Anthomyia*).
 WALKER, List, IV, 954 and 961 (*Anthomyia determinata* and *Eriphia ciliata*).—Nova Scotia and Martin Falls, Canada. [Stein, from the types.]
 MEADE, Desc. List, 51.
 STEIN, Berl. Ent. Zeitsch., XLII, 236, recognizes a specimen from N. A. (Vancouver Id.?). Die Walk. Anth., 192, 195, syn. (*Chortophila*).
planipalpis STEIN, Berl. Ent. Zeitsch., XLII, 234 (*Chortophila*).—Idaho.
platyura MEIGEN, Syst. Besch., v, 171 (*Anthomyia*).—Europe.
 SCHINER, Fauna Austr., I, 645; the larvæ have been bred from the bulb of a species of *Allium*.
 COQUILLETT, Psyche, Jan., 1901, 150, oc. in N. M.; "Hitherto reported as occurring over the greater part of the United States, east of Idaho and Kans."
 Beulah, N. M.—Skinner.
pretiosa WALKER, of Coquillett, see *Prosulphia arclate*.
prisca VAN DER WULP, Biologia, Dipt., II, 340.—Durango, Patzcuaro, and Jalisco, Mex.
rubivora COQUILLETT, Canad. Ent., XXIX, 162.—Ithaca, N. Y.; the larvæ boring in the stems of the cultivated raspberry.
 LINTNER, 11th N. Y. Rept., 170 (*Anthomyia* sp.?), same habits.
 SLINGERLAND, Bull. 126, Cornell Univ. Expt. Station, 54-60, life hist.
 BRITTON, Rept. Conn. Ex. Station for 1902, 167, pl. xiv, biology, etc.—Conn.
ruficeps ZETTERSTEDT, Ins. Lapp., 698 (*Anthomyza*); Dipt. Scand., v, 1770 (id.).—N. Europe.
 MEIGEN, Syst. Besch., v, 177 (*Anthomyia*).
 SCHINER, Fauna Austr., I, 644 (id.).
 STÆGER, Grœnl. Antl., 366, oc. in Greenland (id.).
 WEBSTER, Canad. Ent., 1900, 212, reared from young wheat plants in Ohio.
spinipes BIGOT, Annales, 1885, 279 (*Chortophila*).—Rocky Mts.
stlemba GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 147; Ditt. del Mess., IV, 29 (*Chortophila*).—Mex.
substriata STEIN, Berl. Ent. Zeitsch., XLII, 233 (*Chortophila*).—Ida., Mass., Pa.

HYLEPHILA.

- RONDANI, Dipt. Ital. Prod., VI, 233, 1877.
silvestris FALLÉN, Muscides, 70 (*Musca*).—Europe.
 ZETTERSTEDT, Ins. Lapp., 682 (*Anthomyza murina*); Dipt. Scand., iv, 1454 and 1527 (*Aricia decrepita* and *silvestris*). [Stein, from Zetterstedt's types.]

COQUILLETT, Proc. Wash. Acad. Sci., II, 452, oc. at Kukak Bay, Popof Id., and Kadiak, Alaska.

PEGOMYIA.

DESVOIDY, Myodaires, 598, 1830 (*Pegomya*).

MACQUART, Hist. Nat. Dipt., II, 350, 1835.

MEADE, Ent. Mo. Mag., 1882, July, p. 13; Desc. List, 53, 1897.

LINTNER, 1st N. Y. Rept., 181, 1882.

TOWNSEND, Trans. Amer. Ent. Soc., XIX, 293, notes.

affinis STEIN, Berl. Ent. Zeitsch., XLII, 239 (as *vicina* LINTNER); 286 (corrected and name changed).—Pa., Va., Ill.

bicolor WIEDEMANN, Zool. Mag., I, 77 (*Anthomyia*).—Europe.

FALLÉN, Muscides, 91 (*Musca*).

MEIGEN, Syst. Besch., v, 185 (id.).

ZETTERSTEDT, Dipt. Scand., v, 1773 (*Anthomyza*).

SCHINER, Fauna Austr., I, 635 (*Anthomyia*).

RONDANI, Dipt. Ital. Prod., VI, 205 (*Chortophila*).

STEIN, Berl. Ent. Zeitsch., XLII, 239, oc. in Wash.

WEBSTER, Canad. Ent., XXX, 19, reared from leaf-mining larva in *Rumex* sp.

calypttrata ZETTERSTEDT, Dipt. Scand., v, 1775 (*Anthomyza*).—N. Europe.

STEIN, Berl. Ent. Zeitsch., XLII, 237.—Wash., Minn., Mass., Pa., Ill.

communis WALKER, see *Euryomma*.

? conformis FALLÉN, Muscides, 82 (*Musca*).—Europe.

MEIGEN, Syst. Besch., v, 180 (*Anthomyia*).

LUNDBECK, Dipt. Grœnl., II, 287, doubtfully reported from Greenland.

costalis STEIN, Berl. Ent. Zeitsch., XLII, 243.—S. D.

COQUILLETT, Proc. Wash. Acad. Sci., II, 451, oc. in Sâldovia and Kukak Bay, Alaska. N. M.—Coq.

debilis STEIN, Die Walk. Anth., 195.—U. S.

finitima STEIN, Berl. Ent. Zeitsch., XLII, 241.—S. D., Ill.

flavifrons WALKER, List, IV, 966 (*Eriphia*).—Martin Falls, Canada.

STEIN, Die Walk. Anth., 196, is a female *Pegomyia*, unrecognizable without the male.

latitarsis ZETTERSTEDT, Dipt. Scand., v, 1754 (*Anthomyza*).—N. Europe.

SCHINER, Fauna Austr., I, 635 (*Anthomyia*).

RONDANI, Dipt. Ital. Prod., VI, 161 (*Anthomyia*).

MEADE, Desc. List, 47.

STEIN, Berl. Ent. Zeitsch., XLII, 249, oc. in Mass.

N. J.—Smith Cat.

nitidula COQUILLETT, Trans. Amer. Ent. Soc., XXIX, 103.—Beulah, N. M.

rufescens STEIN, Berl. Ent. Zeitsch., XLII, 238.—Ontario, Canada.

ruficeps STEIN, Berl. Ent. Zeitsch., XLII, 286.—La.

setosa STEIN, Berl. Ent. Zeitsch., XLII, 247.—Idaho.

spinosissima STEIN, Berl. Ent. Zeitsch., XLII, 242.—Kans.

trilineata STEIN, Berl. Ent. Zeitsch., XLII, 245.—S. D.

trivittata STEIN, Berl. Ent. Zeitsch., XLII, 246.—Mass., Wash.

unicolor STEIN, Berl. Ent. Zeitsch., XLII, 236.—Pa. N. J.—Smith Cat.

vicina LINTNER, 1st N. Y. Rept., 203-211, figs., habits, etc.; larvæ mine in beet leaves.—N. Y.

? RILEY and HOWARD, Insect Life, III, 470, note. Query by J. M. A.

HOWARD, Ins. Life, VII, 379, fig. and life hist., same habit.—N. Y. and Cal.

FORBES, Bull. 60, Ill. Expt. Station, 407, fig. and notes; larvæ mining leaves of sugar beets.

PETTIT, Bull. 175, Mich. Expt. Station, July, 1899, notes and original fig.; repeated in Annual Rept. Mich. Expt. Station for 1899, 135.—Mich.

FORBES, 21st Ill. Rept., 59–61, fig.

CHITTENDEN, Bull. 43, Div. of Ent., 50–52, life hist., figs., etc.

Note.—Stein's description of the species, Berl. Ent. Zeitsch., XLII, 239, turned out to be based on specimens of what he afterwards called *affinis* (loc. cit., p. 286). The latter species had been to some extent distributed among American collections by Mr. Coquillett, under the name of *vicina*.

PENTACRICIA.

STEIN, Berl. Ent. Zeitsch., XLII, 249, 1898.

aldrichii STEIN, loc. cit.—Kans., Ga., Ill.

CHIROSLA.

RONDANI, Dipt. Ital. Prod., VI, 238, 1876.

MEADE, Desc. List, 77, 1897.

capito COQUILLETT, Proc. U. S. N. M., XXV, 123.—Manumuskine, N. J.

glauca COQUILLETT, Proc. Wash. Acad. Sci., II, 452.—Farragut Bay, Alaska.

idahensis STEIN, Berl. Ent. Zeitsch., XLII, 251.—Idaho.

thinobia THOMSON, of Coquillett, see *Scatophaga*.

HOPLOGASTER.

RONDANI, Dipt. Ital. Prod., VI, 246, 1877.

nigritarsis STEIN, Berl. Ent. Zeitsch., XLII, 252.—N. Y. N. J.—Smith Cat.

TETRACHÆTA.

STEIN, Berl. Ent. Zeitsch., XLII, 254, 1898.

unica STEIN, loc. cit.—Mass.

PHYLLOGASTER.

STEIN, Berl. Ent. Zeitsch., XLII, 256, 1898.

cordyluroides STEIN, loc. cit.—Fla., Mass.

CARICEA.

DESVOIDY, Myodaires, 530, 1830.

RONDANI, Dipt. Ital. Prod., VI, 272, 1877.

MEADE, Desc. List, 70, 1897.

SCHNABEL, Horæ Soc. Ent. Ross., XXIV, 495, 1890, as a subgenus of *Canosia*; op cit., XXXVI, 170, 1902.

STEIN, Berl. Ent. Zeitsch., XLII, 257, 1898.

Note.—There is much difference of opinion as to the essential characters which distinguish this from *Canosia*; some good authorities do not regard it as distinct. Until the species have been adequately studied with reference to the decisive points, it seems hardly possible to avoid confusion.

albicornis MEIGEN, Syst. Besch., v, 220 (*Canosia*).—Europe.

SCHINER, Fauna Austr., I, 664 (id.).

White Mts., N. H.—Slosson; det. by Coq.

antica WALKER, Dipt. Saund., 367 (*Canosia*).—U. S.

STEIN, Die Walk. Anth., 186, says the type is broken, but apparently the same as his *insignis*.

N. J.—Smith Cat.; Fla., several places—Johnson.

insignis STEIN, Berl. Ent. Zeitsch., XLII, 257.—Fla.

See *antica*.

fuscopunctata MACQUART, of Slosson's and Johnson's lists, see *Canosia*.

? *intacta* WALKER, Dipt. Saund., 369 (*Canosia*?).—U. S.

Montreal—Chagnon.

nana ZETTERSTEDT, Dipt. Scand., iv, 1716 (*Anthomyza*).—N. Europe.

SCHINER, Fauna Austr., i, 667 (*Canosia*).

RONDANI, Dipt. Ital. Prod., vi, 274.

STEIN, Berl. Ent. Zeitsch., XLII, 259.—Mich., Ia., Mass., La.

tigrina FABRICIUS, Spec. Ins., ii, 444 (*Musca*); Syst. Antl., 297 (id.).—Europe.

ZETTERSTEDT, Dipt. Scand., iv, 1712 (*Anthomyza*).

WALKER, List, iv, 1970 (*Canosia scxmaculata*).—Martin Falls, Canada.

SCHINER, Fauna Austr., i, 663 (*Canosia*).

STEIN, Die Walk. Anth., 208, syn.

CÆNOSIA.

MEIGEN, Syst. Besch., v, 210, 1826.

SCHINER, Fauna Austr., i, 662, 1862, inclusive of *Caricca*.

RONDANI, Dipt. Ital. Prod., vi, 253, 1877.

VAN DER WULP, Biologia, Dipt., ii, 343, def. and table of Mexican spp., 1896.

MIK, Wien. Ent. Zeit., xiv, 296–300, pl., describes a European species breeding in flowers of *Trollius*.

Compare also the species of *Caricca*, some of which may be better placed here.

albifrons ZETTERSTEDT, see *Limnospila*.

antennalis STEIN, Berl. Ent. Zeitsch., XLII, 272.—Ga.

antica WALKER, see *Caricca*.

atrata WALKER, see *lata*.

aurifrons STEIN, see *ausoba*.

ausoba WALKER, List, xv, 938 (*Anthomyia*); 941 (*Anthomyia alone*).—Nova Scotia; Martin Falls, Canada. [Stein.]

STEIN, Berl. Ent. Zeitsch., XLII, 260 (*aurifrons*); Die Walk. Anth., syn.—Ont., Mass., Pa., Ill.

N. J.—Smith Cat.: Montreal—Chagnon.

bicolor BIGOT, Annales, 1885, 302 (*Dialyta*).—Mex.

GIGLIO-TOS, Ditt. del Mess., iv, 33, note.—Tuxpango, Mex.

bistriata VAN DER WULP, Biologia, Dipt., ii, 345.—Orizaba and Tabasco, Mex.

calopyga LOEW, Cent., x, 71.—Pa.

STEIN, Berl. Ent. Zeitsch., XLII, 272, oc. in Ill.

N. J.—Smith Cat.; White Mts., N. H.—Slosson (the latter *Caricca*).

canescens STEIN, see *lata*.

femoralis VAN DER WULP, Biologia, Dipt., ii, 345.—Guerrero, Orizaba, Mexico City and Vera Cruz, Mex.

flavicoxa STEIN, Berl. Ent. Zeitsch., XLII, 271.—Ill.

HOWARD, Canad. Ent., XXXIII, 44, oc. Va.; bred from cow-dung.

flavifrons STEIN, Berl. Ent. Zeitsch., XLII, 261.—Ga.

flavipes WILLISTON, Trans. Ent. Soc. Lond., 1896, 370.—St. Vincent, W. I.

flavipes (bis) STEIN, Berl. Ent. Zeitsch., XLII, 268 and 288.—Mass., Ga.

According to Stein, this comes very near to *lata* (his *canescens*), so that the preoccupation may be immaterial, if it prove a synonym.

fuscopunctata MACQUART, Dipt. Exot. Suppl. iv, 2, 270.—N. A.

See note to *ovata*.

geniculata FALLÉN, Muscides, 89 (*Musca*).—Europe.

ZETTERSTEDT, Dipt. Scand., iv, 1720 (*Anthomyza*).

SCHINER, Fauna Austr., i, 665.

MEADE, Desc. List, 75.

STEIN, Berl. Ent. Zeitsch., XLII, 267, oc. in N. A.—No locality.

Axton, N. Y.—M. and H.

hypopygialis STEIN, Berl. Ent. Zeitsch., XLII, 268.—Mass., Ga., Ill.

incisurata VAN DER WULP, Tijdschr. v. Ent., XII, 84.—Wis.

insularis WILLISTON, Trans. Ent. Soc. Lond., 1896, 371, pl. XII, f. 123.—St. Vincent, W. I.

intacta WALKER, see *Dexiopsis lacteipennis*.

lata WALKER, Dipt. Saund., 368 and 369 (*lata* and *atrata*).—U. S.

STEIN, Berl. Ent. Zeitsch., XLII, 265 (*canescens*).—Mass. to Fla. and Ida.

COQUILLETT, Proc. Wash. Acad. Sci., II, 445, oc. in Alaska, and syn. of Stein.

HOWARD, Canad. Ent., XXXIII, 44, oc. in Va.; bred from cow-dung.

STEIN, Die Walk. Anth., 187, 199, partially confirms from types the identity of *lata* and *atrata*, which the descriptions certainly indicate, as far as they can be trusted.

N. J.—Smith Cat. (*canescens*); White Mts., N. H.—Slosson (*Caricca*); Fla.—Johnson.

macrocera VAN DER WULP, Biologia, Dipt., II, 344, pl. VIII, f. 17.—Guerrero, Mex.

modesta LOEW, Cent., x, 72.—Wash.

nivea LOEW, Cent., x, 70.—Pa.

STEIN, Berl. Ent. Zeitsch., XLII, 272, oc. in Pa.

White Mts., N. H.—Slosson (*Caricca*); N. J.—Smith Cat.; Fla.—Johnson.

nudiseta STEIN, Berl. Ent. Zeitsch., XLII, 273.—Mass.

N. J.—Smith Cat.; White Mts., N. H.—Slosson.

oscillans VAN DER WULP, Biologia, Dipt., II, 344.—Guerrero, Mex.

ovata STEIN, Berl. Ent. Zeitsch., XLII, 263 and 288.—Ga., Ill., La.

Note.—I do not agree with Mr. Coquillett in calling this a synonym of *fuscopunctata*; the named specimens returned to me by Stein, through Dr. Hough, are not the same species which Coquillett determined as *fuscopunctata* for Dr. Nason, and sent by him to me. I should call *fuscopunctata* unrecognizable.

pacifera GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 147; Ditt. del Mess., iv, 31.—Tuxpango, Mex.

pallipes STEIN, Berl. Ent. Zeitsch., XLII, 270.—Ont., Ill.

HOWARD, Proc. Wash. Acad. Sci., II, 585, oc. in Va. and note.

punctulata VAN DER WULP, Biologia, Dipt., II, 343.—Guerrero and Patzcuaro, Mex.

? *pygmaea* ZETTERSTEDT, Dipt. Scand., iv, 1721 (*Anthomyza*).—N. Europe.

MEADE, Ent. Mo. Mag., Apr., 1878, oc. in N. A., with a slight doubt.

sexmaculata WALKER, see *Caricca tigrina*.

? *sexnotata* MEIGEN, Syst. Besch., v, 213.—Europe.

SCHINER, Fauna Austr., i, 665.

MEADE, Desc. List, 75.

STEIN, Berl. Ent. Zeitsch., XLII, 263.—Wash.: recognized with a doubt,—may be a new species.

solita WALKER, Dipt. Saund., 368.—Martin Falls, Canada.

CHITTENDEN, Bull. 27, n. ser., Div. of Ent., adult reported as feeding on adults of *Sciara inconstans* in greenhouses; also observed to feed on adults of *Gymnopternus spectabilis*.

White Mts., N. H.—Slosson; St. Augustine and Ormond, Fla.—Johnson.
 ? *spinosus* WALKER, List, iv, 967.—Martin Falls, Canada.

STEIN, Die Walk. Anth., 210, type redesc.; scarcely a *Cænusia*.
substituta WALKER, see *Hylemyia lipsia*.

tarsalis WALKER, Dipt. Saund., 355 (*Anthomyia*).—U. S.

STEIN, Die Walk. Anth., 213, type redesc.

tenuicornis VAN DER WULP, Biologia, Dipt., II, 343.—Vera Cruz, Mex.

tibialis STEIN, Berl. Ent. Zeitsch., XLII, 275.—Ga., Pa., Ill., La.

triangula FALLÉN, Muscides, 74, 82 (*Musca*).—Europe.

ZETTERSTEDT, Ins. Lapp., 685 (*Anthomyia*); Dipt. Scand., iv, 1482 (*Aricia*).

SCHINER, Fauna Austr., I, 664.

MEADE, Desc. List, 74.

LUNDBECK, Dipt. Groenl., II, 289, oc. in Greenland.

tricincta LOEW, see *Cordylura*.

triseta STEIN, Berl. Ent. Zeitsch., XLII, 262.—Mass. N. J.—Smith Cat.

uvens GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 147; Ditt. del Mess., iv, 32.—
 Mex.

varicornis COQUILLETT, Proc. U. S. N. M., XXII, 256.—Porto Rico.

verna FABRICIUS, Syst. Ent., iv, 330 (*Musca*); Syst. Antl., 304 (id.).—Europe.

COQUEBERT, Illustr., 106, pl. XXIV, f. 2 (*Musca*).

MEIGEN, Syst. Besch., v, 214.

SCHINER, Fauna Austr., I, 666.

WEBSTER, Canad. Ent., 1900, 213, oc. in Ohio; det. Coquillett.

White Mts., N. H.—Slosson.

vitis GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 147; Ditt. del Mess., iv, 32.—
 Tuxpango, Mex.

DEXIOPSIS.

POKORNY, Verh. Zool.-Bot. Ges., 1893, 533.

basalis STEIN, Berl. Ent. Zeitsch., XLII, 259.—Ill.

lacteipennis ZETTERSTEDT, Dipt. Scand., iv, 1722 (*Anthomyza*).—N. Europe.

? WALKER, Trans. Ent. Soc., n. ser., v, 318 (*Cænusia intacta*).—N. A.

STEIN, Berl. Ent. Zeitsch., XLII, 259 (*Lispocephala*), oc. in S. D., Kans.,
 La., Wash., Ga., Mass., Col., Ill.

STEIN, Die Walk. Anth., 198, syn. of Walker, with a doubt.

N. J.—Smith Cat.; Montreal—Chagnon.

Note.—The *Cænusia intacta* of Mrs. Slosson's list, from the White Mts.,
 is probably an error of identification.

LIMNOSPILA.

SCHNABL, Wien. Ent. Zeit., XXI, III, 1902.

albifrons ZETTERSTEDT, Dipt. Scand., VIII, 3301 (*Aricia*).—N. Europe.

? RONDANI, Dipt. Ital. Prod., VI, 267 (*Cænusia obscuripes*). [Syn. by
 Schnabl, with a doubt.]

STEIN, Berl. Ent. Zeitsch., XLII, 276 (*Cænusia*).—Mass.

COQUILLETT, Proc. Wash. Acad. Sci., II, 446, oc. in Alaska.

DIALYTA.

MEIGEN, Syst. Besch., v, 208, 1826.

SCHINER, Fauna Austr., I, 656, 1862.

bicolor BIGOT, see *Cænusia*.

cupreifrons WALKER, see *Phorbia fusciceps*

SCHÆNOMYZA.

HALIDAY, Ent. Mo. Mag., I, 106, 1838.

RONDANI, Dipt. Ital. Prod., VI, 239, 1877.

VAN DER WULP, Biologia, Dipt., II, 346, brief diagnosis, 1896.

MEADE, Desc. List Brit. Anth., 78, 1897.

chrysostoma LOEW, Cent., IX, 86.—N. H.

STEIN, Berl. Ent. Zeitsch., XLII, 277, oc. in Ont., Mass., Ill.

N. J.—Smith Cat.

dorsalis LOEW, Cent., X, 73.—D. C.

STEIN, Berl. Ent. Zeitsch., XLII, 288.—La.

N. J.—Smith Cat.; Ohio—Webster; Beulah, N. M.—Skinner.

pulicaria VAN DER WULP, Biologia, Dipt., II, 346, pl. VIII, f. 18.—Guerrero, Mex.

LISPA.

LATREILLE, Précis caract. gén. Ins., 169, 1796.

MEIGEN, Syst. Besch., v, 224, 1826 (*Lispe*).

LOEW, Stett. Ent. Zeit., 1847, 23 (*Lispe*).

SCHINER, Fauna Austr., I, 658, 1862 (*Lispe*).

RONDANI, Dipt. Ital. Prod., VI, 282, 1877.

VAN DER WULP, Biologia, Dipt., II, 342 (*Lispe*), 1896.

MEADE, Desc. List Brit. Anth., 69, 1897.

albitarsis STEIN, Berl. Ent. Zeitsch., XLII, 277.—Kans., Ga., Mass., Pa., Ill., La.

consanguinea LOEW, Wien. Ent. Monatsch., II, 8.—Europe.

SCHINER, Fauna Austr., I, 661.

OSTEN SACKEN, Cat., 171, oc. in Texas, on authority of "Loew in litt."

See also references under *tentaculata*.

flavicincta LOEW, Stett. Ent. Zeit., VIII, 27.—Europe.

OSTEN SACKEN, Cat., 171, oc. in Hudson Bay Terr., on authority of "Loew in litt."

hispidula WALKER, List, IV, 971.—Martin Falls, Canada.

White Mts., N. H.—Slosson.

nasoni STEIN, Berl. Ent. Zeitsch., XLII, 280.—S. D., Ga., Ill., La.

nigromaculata STEIN, see *palposa*.

palposa WALKER, List, IV, 926 (*Anthomyia*).—Martin Falls, Canada.

? WALKER, List, IV, 972 (*simillima*).—Martin Falls, Canada. [Stein, with a doubt.]

STEIN, Die Walk. Anth., 203, 209, syn.

Note.—The *Mydaa palposa* of Mrs. Slosson's list is a mistake.

rufitibialis MACQUART, Dipt. Exot., II, 3, 168, pl. XXII, f. 7.—Brazil or Chile.

COQUILLETT, Proc. U. S. N. M., XXII, 256, oc. in Porto Rico.

serotina VAN DER WULP, Biologia, Dipt., II, 342.—Vera Cruz, Tabasco and Mexico City, Mex.

sociabilis LOEW, Cent., II, 72.—D. C.

STEIN, Berl. Ent. Zeitsch., XLII, 281.—Mass.

White Mts., N. H.—Slosson; Col.—J. M. A.

tentaculata DEGEER, Mém. Hist. Nat. Ins., VI, 42 (*Musca*).—Europe.

LATREILLE, Gen. Crust. et Ins., IV, 347.

FALLÉN, Muscides, 93.

MEIGEN, Syst. Besch., v, 226, pl. XLV, f. 15.

MACQUART, Hist. Nat. Dipt., II, 314.

ZETTERSTEDT, Dipt. Scand., v, 1796.

WALKER, Ins. Brit., II, 147; List, IV, 962 (*Eriphia acela*).—England; Martin Falls, Canada. [Syn. by Stein, with a doubt.]

SCHINER, Fauna Austr., 1, 660.

VAN DER WULP, Tijdschr. v. Ent., XI, 1868, pl. II, f. 6.

RONDANI, Dipt. Ital. Prod., VI, 289.

MEADE, Desc. List, 69.

KOWARZ, Wien. Ent. Zeit., XI.

WILLISTON, Dipt. of Death Valley Exped., 257, bibliog.; oc. in New England, Mich., S. D., and Cal.

STEIN, Berl. Ent. Zeitsch., XLII, 281, explains difference between this and *consanguinea*.—Ida., S. D., Kans., Wash.

SCHNABL, Wien. Ent. Zeit., XXI, 66, difference between this and some European species, including *consanguinea*, described and figured.

uliginosa FALLÉN, Muscides, 93.—Europe.

LOEW, Stett. Ent. Zeit., VIII, 24.

SCHINER, Fauna Austr., 1, 661.

RONDANI, Dipt. Ital. Prod., VI, 292.

MEADE, Ent. Mo. Mag., XIV, 252, oc. in N. A.; Desc. List, 70.

KOWARZ, Wien. Ent. Zeit., XI.

WILLISTON, Trans. Ent. Soc. Lond., 1896, 368, oc. in St. Vincent, W. I.

VAN DER WULP, Biologia, Dipt., II, 342, oc. at Patzcuaro and Mexico City, Mex.

STEIN, Berl. Ent. Zeitsch., XLII, 280, oc. in Ida., Pa., Ont., Ill.

N. J.—Smith Cat.; White Mts., N. H.—Slosson; Fla.—Johnson.

FUCELLIA.

DESVOIDY, Annales Soc. Ent. France, 1841, 269.

HALIDAY, Ann. Nat. Hist., 1838 (*Halithea*, preoc.).

SCHINER, Fauna Austr., II, 15, 1864.

BECKER, Berl. Ent. Zeitsch., XXXIX, 80, 1894.

ariciiformis HOLMGREN, Ins. Nordgræn., 103 (*Scatophaga*).—Greenland.

LUNDBECK, Dipt. Græn., II, 292, fig.—Greenland.

fucorum FALLÉN, Scatomyzides, 5 (*Scatomyza*).—Europe.

MEIGEN, Syst. Besch., v, 253 (*Scatophaga*).

ZETTERSTEDT, Dipt. Scand., v, 1982 (*Scatomyza*).

SCHINER, Fauna Austr., II, 15.

CURTIS, Ins. Ross's Exped., LXXX, oc. in Arctic America.

STÆGER, Græn. Antl., oc. in Greenland.

COQUILLETT, Dipt. of Commander Ids., 344; Proc. Wash. Acad. Sci., II, 453.—Commander Ids.; Alaska, various places.

HOWARD, Proc. Wash. Acad. Sci., II, 599, oc. in Ga. and Porto Rico.

N. J.—Smith Cat.; Fla.—Johnson; Greenland—Lundbeck.

Note.—This species is common on sea-beaches, about sea-weeds and other refuse.

intermedia LUNDBECK, Dipt. Græn., II, 291, fig.—Greenland.

SCATOPHAGIDÆ.

BECKER, Berl. Ent. Zeitsch., XXXIX, 77–196, 1894, monograph of the European portion of the family.

COQUILLETT, Jour. N. Y. Ent. Soc., VI, 161, 1898, table of genera.

Note.—Some of the species placed in *Scatophaga* and *Cordylura* may belong to the smaller genera; it has been impossible for me to make a thorough generic revision of the species.

CORDYLURA.

FALLÉN, Specim. ent., nov. Dipt., etc., 1810.

MEIGEN, Syst. Besch., v, 229, 1826.

SCHINER, Fauna Austr., II, 1, 1804.

RONDANI, Dipt. Ital. Prod., VII, 11, 1866.

BECKER, Berl. Ent. Zeitsch., XXXIX, 88, 1894.

VAN DER WULP, Biologia, Dipt., II, 348, 1898, table of Mexican species.

acuticornis LOEW, Cent., IX, 94.—Huds. Bay Terr.

adusta LOEW, Cent., III, 41.—N. J. White Mts., N. H.—O. S.

æa WALKER, List, IV, 978.—Martin Falls, Canada.

albibarba LOEW, Cent., IX, 96.—White Mts., N. H.

angustifrons LOEW, Cent., III, 45.—Wis.

bicolor WALKER, List, IV, 974.—Martin Falls, Canada.

bimaculata LOEW, see *Parallemomma varipes*.

brevicornis VAN DER WULP, Biologia, Dipt., II, 349, pl. IX, f. 1.—Guerrero, Mex.

capillata LOEW, Cent., X, 77.—White Mts., N. H.

St. Augustine, Fla.—Johnson (*Cleigastra*).

carbonaria WALKER, List, IV, 1047 (*Lissa*).—N. Y.

White Mts., N. H.—Slosson. Gen. ref. by Coquillett.

cincta LOEW, Cent., III, 47.—D. C.

confusa LOEW, Cent., III, 43.—Fort Resolution, Huds. Bay Terr.

WALKER, List, IV, 972 (*pubera* LINN.).—Martin Falls, Canada. [O. S.]

cornuta LOEW, Cent., III, 48.—English River, Canada. White Mts., N. H.—O. S.

cupricrus WALKER, List, IV, 974.—Martin Falls, Canada.

flavipennis WALKER, List, IV, 975.—Martin Falls, Canada.

flavipes LOEW, Cent., III, 46.—Wis.

fulvibarba LOEW, Cent., X, 76.—Fort Resolution, Canada.

gagatina LOEW, Cent., IX, 93.—Canada.

gilvipes LOEW, Cent., III, 49.—English R., Canada.

glabra LOEW, Cent., IX, 90.—White Mts., N. H.

gracilipes LOEW, Cent., IX, 87.—White Mts., N. H. N. J.—Smith Cat.

hæmorrhoidalis MEIGEN, see *Microprosopa*.

imperator WALKER, List, IV, 975.—Martin Falls, Canada.

impudica REICHE, Bull. Soc. Ent. France, 1857, 77 (*Anthomyia*).—Greenland.

LOEW, Berl. Ent. Zeitsch., 1858, 347, gen. ref.

inermis LOEW, Cent., IX, 88.—White Mts., N. H.

latifrons LOEW, Cent., IX, 92.—Middle States. N. J.—Smith Cat.

longa WALKER, List, IV, 976.—Martin Falls, Canada.

lutea LOEW, Cent., X, 75.—Sitka.

megacephala LOEW, Cent., IX, 94.—D. C.

munda LOEW, Cent., IX, 91.—Fort Resolution, Canada.

White Mts.—Slosson.

nana LOEW, Cent., V, 94.—Canada. White Mts., N. H.—Slosson (*Scatophaga*).

nebulosa COQUILLET, Jour. N. Y. Ent. Soc., VI, 164.—Algonquin, Ill.

pallida FALLÉN, Scatomyzides, 8.—Europe.

MEIGEN, Syst. Besch., v, 242.

ZETTERSTEDT, Ins. Lapp., 726; Dipt. Scand., v, 2008.

VAN DER WULP, Tijdschr. v. Ent., XXVI, 48, oc. in N. A.—Quebec.

pictipennis LOEW, Wien. Ent. Monatsch., VIII, 22.—Siberia and N. A.

pleuritica LOEW, Cent., III, 42.—English R., Canada.

Mass., Conn.—O. S.; White Mts., N. H.—Slosson; N. J.—Smith Cat.;

Montreal—Chagnon.

præusta LOEW, Cent., V, 93.—Canada.

- COQUILLETT, Proc. Wash. Acad. Sci., II, 456, oc. at Berg Bay, Alaska and Franconia, N. H.—N. J.—Smith Cat.
- ? *qualis* SAY, Jour. Acad. Sci. Phil., VI, 176; Compl. Works, II, 366.—Ind.
- OSTEN SACKEN, Cat., 173, note by Loew, "Cannot be *Cordylura*."
- rufina* VAN DER WULP, Biologia, Dipt., II, 349, pl. IX, f. 2.—Guerrero, Mex.
- This may be the same as *Scatophaga rcses* GIGLIO-TOS, which Wulp suspects to be a *Cordylura*.—Wulp, loc. cit.
- scapularis* LOEW, Cent., IX, 89.—English R., Canada.
- setosa* LOEW, Wien. Ent. Monatsch., IV, 81; Cent., III, 44.—D. C.
- N. J.—Smith Cat.
- slossonæ* COQUILLETT, Jour. N. Y. Ent. Soc., VI, 164.—White Mts., N. H., and Mass.
- tenuior* WALKER, List, IV, 977.—Martin Falls, Canada.
- terminalis* LOEW, Cent., III, 39.—Pa.
- tricincta* LOEW, Cent., IX, 83 (*Cynosia*).—White Mts., N. H.
- OSTEN SACKEN, Cat., 173, gen. ref. by "Loew in litt."
- variabilis* LOEW, Zeitsch. f. Ges. Naturwiss., 1876, 326.—Mass.
- COQUILLETT, Proc. Wash. Acad. Sci., II, 456, oc. in Alaska and from "N. H. to N. C., and westward to Texas and Col."
- varipes* WALKER, see *Parallelomma*.
- vicina* VAN DER WULP, Biologia, Dipt., II, 350.—Guerrero, Mex.
- vittipes* LOEW, Cent., X, 74.—Sitka.
- COQUILLETT, Proc. Wash. Acad. Sci., II, 456, oc. in Alaska, several places.
- Hudsonian Zone, N. M.—Cockerell.
- volucricaput* WALKER, List, IV, 977.—Martin Falls, Canada.
- White Mts., N. H.—Slosson (*Hydromyza*).
- unilineata* ZETTERSTEDT, see *Mcgophthalma*.

ACICEPHALA.

- COQUILLETT, Jour. N. Y. Ent. Soc., VI, 163, 1898.
- pilosella* COQUILLETT, Jour. N. Y. Ent. Soc., VI, 163.—Col. and Reno, Nev.
- polita* COQUILLETT, Jour. N. Y. Ent. Soc., VI, 163.—Col.

PARALLELOMMA.

- BECKER, Berl. Ent. Zeitsch., XXXIX, 94, 1894.
- varipes* WALKER, List, IV, 1046 (*Lissa*).—Ohio.
- LOEW, Wien. Ent. Monatsch., IV, 81 (*Cordylura bimaculata*); Cent., III, 40 (id.).—Ill., Wis. [O. S.]
- VAN DER WULP, Tijdschr. v. Ent., X, 152, pl. v, f. 7, 9 (*Cordylura maculipennis*).—Wis. [Loew, Zeitsch. f. Ges. Naturwiss., XXXVI, 116.]
- Generic reference by Hough, in specimens sent me.
- N. J.—Smith Cat.; Montreal—Chagnon.

CHÆTOSA.

- COQUILLETT, Jour. N. Y. Ent. Soc., VI, 163, 1898.
- punctipes* MEIGEN, Syst. Besch., V, 239 (*Cordylura punctipes* and *flavipes*).—Europe.
- ZETTERSTEDT, Dipt. Scand., V, 2046 (*Cordylura*).
- SCHINER, Fauna Austr., II, 10 (*Cleigastrea*).
- BECKER, Berl. Ent. Zeitsch., XXXIX, 158 (*Trichopalpus*).
- COQUILLETT, Jour. N. Y. Ent. Soc., VI, 163, generic relations, oc. in N. A., etc.—Minn., Col.

ORTHOCHÆTA.

BECKER, Berl. Ent. Zeitsch., xxxix, 101, 1894 (*Orthachæta*).

pilosa ZETTERSTEDT, Ins. Lapp., 732; Dipt. Scand., v, 2064 (*Cordylura*).—Europe.

SCHINER, Fauna Austr., II, 12 (*Clvigastra*).

COQUILLETT, Proc. Wash. Acad. Sci., II, 456, oc. in N. A.—Metlakahtla, Alaska.

MEGOPHTHALMA.

BECKER, Berl. Ent. Zeitsch., xxxix, 105, 1894 (*Megaphthalma*).

unilineata ZETTERSTEDT, Ins. Lapp., 727; Dipt. Scand., v, 2010 (both *Cordylura*).—Europe.

BECKER, Berl. Ent. Zeitsch., xxxix, 107.

OSTEN SACKEN, Cat., 173, oc. in Sitka, Alaska (*Cordylura*).

HEXAMITOCERA.

BECKER, Berl. Ent. Zeitsch., xxxix, 107, 1894.

cornuta WALKER, List, IV, 1047 (*Lissa*).—Martin Falls, Canada.

COQUILLETT, Proc. Wash. Acad. Sci., II, 456, oc. and gen. ref.—Yakutat, Alaska.

flavida COQUILLETT, Proc. U. S. N. M., xxiii, 612.—Franconia, N. H.

vittata COQUILLETT, Jour. N. Y. Ent. Soc., vi, 165.—Col.

PSELAPHEPHILA.

BECKER, Berl. Ent. Zeitsch., xxxix, 122, 1894.

similis COQUILLETT, Proc. U. S. N. M., xxv, 124.—Beverly, Mass.

HYDROMYZA.

FALLÉN, Hydromyzides, I, 1823.

SCHINER, Fauna Austr., II, 1864.

BECKER, Berl. Ent. Zeitsch., xxxix, 132, 1894.

confluens LOEW, Cent., III, 50.—English R., Canada.

POGONOTA.

BECKER, Berl. Ent. Zeitsch., xxxix, 1894, 138 and 141 (*Pogonota* and *Okenia*).

COQUILLETT, Proc. Wash. Acad. Sci., II, 456, 1900, unites the preceding.

kincaidi COQUILLETT, Proc. Wash. Acad. Sci., II, 455.—Popof Id., Alaska.

MICROPROSOPA.

BECKER, Berl. Ent. Zeitsch., xxxix, 147, 1894.

hæmorrhoidalis MEIGEN, Syst. Besch., v, 237 (*Cordylura*).—Europe.

ZETTERSTEDT, Ins. Lapp., 731 and 732 (*Cordylura hæmorrhoidalis* and *pallipes*); Dipt. Scand., v, 2042, 2047, 2049 (*C. lividipes*, *hæmorrhoidalis*, and *pallipes*).

STÆGER, Grœnl. Antliater, 366, oc. in Greenland.

OSTEN SACKEN, Cat., 172, oc. on White Mts., N. H.

BECKER, Berl. Ent. Zeitsch., xxxix, 149, syn. and desc.

LUNDBECK, Dipt. Grœnl., II, 290, oc. in Greenland (*Clvigastra*).

OPSIOMYIA.

COQUILLETT, Jour. N. Y. Ent. Soc., vi, 162, 1898.

palpalis COQUILLETT, loc. cit.—White Mts., N. H.

SPATHIOPHORA.

- RONDANI, Dipt. Ital. Prod., I, 99, 1856 (*Spaziphora*); VII, pt. I, 7 (id.).
 BECKER, Berl. Ent. Zeitsch., XXXIX, 158, 1894.
 I have an undetermined species from South Haven, Mich.

SCATOPHAGA.

- MEIGEN, Illig. Mag., II, 277, 1803; Syst. Besch., v, 246, 1826.
 FALLÉN, Scatomyzides, 2, 1819 (*Scatomyza*).
 DESVOIDY, Myodaires, 629, 1830 (*Scatina*).
 SCHINER, Fauna Austr., II, 15, 1864.
 BECKER, Berl. Ent. Zeitsch., XXXIX, 161, 1894.
 VAN DER WULP, Biologia, Dipt., II, 348, 1898.
ariciiformis HOLMGREN, see *Fucellia*.
bicolor WALKER, List, IV, 982.—Martin Falls, Canada.
 White Mts., N. H.—Slosson (*Scatina*).
canadensis WALKER, Trans. Ent. Soc., n. ser., IV, 218.—Canada.
 White Mts., N. H.—Slosson.
cænosa GIGLIO-TOS, Boll. R. Univ. Torino. VIII, No. 158; Ditt. del Mess., IV, 34.—
 Popocatepetl, Mex., 3,800 meters.
crinita COQUILLETT, Proc. U. S. N. M., XXIII, 612.—Bering Id.
dasythrix BECKER, Berl. Ent. Zeitsch., XXXIX, 173.—Bering Straits.
 COQUILLETT, Dipt. Commander Ids., 345, oc. on Bering Id.
 ? *diadema* WIEDEMANN, Auss. Zw., II, 448.—Montevideo, S. A.
 ? RONDANI, Archiv., etc., Canestrini, III, fasc. I, p. 35, oc. in Labrador.
 Query by J. M. A.
estotilandica RONDANI, Archiv., etc., Canestrini, III, fasc. I, p. 35 (*Scatina*).—
 Labrador.
exotica WIEDEMANN, Auss. Zw., II, 448.—New Orleans, La.
 COQUILLETT, Proc. U. S. N. M., XXII, 257, oc. in Porto Rico.
frigida COQUILLETT, Proc. Wash. Acad. Sci., II, 454.—Kukak Bay and Popof Id.,
 Alaska.
furcata SAY, Jour. Acad. Sci. Phil., III, 98, 1823 (*Pyropa*); Compl. Works, II,
 85 (id.).—Mo.
 MEIGEN, Syst. Besch., v, 252, 1826 (*squalida*); VII, 342 (*nigricans* MACQ.).
 —Europe. [Coq.]
 MACQUART, Hist. Nat. Dipt., II, 395 (*nigricans*).
 ZETTERSTEDT, Ins. Lapp., 733 (*Cordylura fuscipennis*); Dipt. Scand., v,
 1973, and 1975 (the latter *fuscinervis*).
 CURTIS, in Ross's Expedition, LXXX (*apicalis*).—Arctic America. [Coq.]
 SCHINER, Fauna Austr., II, 18 (*squalida*).
 BECKER, Berl. Ent. Zeitsch., XXXIX, 172 (*squalida*).
 TOWNSEND, Canad. Ent., XXIII, 153 (*Cleigastra suisterci*).—D. C.; larvae
 in swine dung. [Coq.]
 HOWARD, Proc. Wash. Acad. Sci., II, 598, figs. and habits; reared from
 human excrement.—D. C., W. Va.
 White Mts., N. H.—Slosson; Brit. Col. and Alaska—Coquillett; Green-
 land—Lundbeck; Montreal—Chagnon.
intermedia WALKER, List, IV, 980.—Nova Scotia.
 COQUILLETT, Dipt. Commander Ids., 345, oc. on Bering Id.; Proc. Wash.
 Acad. Sci., II, 454, oc. in Alaska, Me., and Mass.
 White Mts., N. H.—Slosson.
 Note.—Walker's description of *intermedia* seems unrecognizable to me.

- islandica** BECKER, Berl. Ent. Zeitsch., xxxix, 175.—Labrador and Iceland.
COQUILLETT, Dipt. Commander Ids., 345, oc. on Copper Id.; Proc. Wash. Acad. Sci., ii, 454, oc. in Alaska.
- lanata** LUNDBECK, Dipt. Grœnl., ii, 294.—Greenland.
- litorea** FALLÉN, Scatomyzides, 4.—Europe.
MEIGEN, Syst. Besch., v, 254.
ZETTERSTEDT, Ins. Lapp., 722; Dipt. Scand., v, 1975.
SCHINER, Fauna Austr., ii, 18.
O. FABRICIUS, Fauna Grœlandica, 203 (? *Musca stercoraria*).—Greenland.
[Lundbeck.]
STÆGER, Grœnl. Antl., 366, oc. in Greenland.
HOLMGREN, Ins. Spetsb., 34; Ins. Nordgrœnl., 103 (*nigripes*).—Greenland.
[Lundbeck.]
BECKER, Berl. Ent. Zeitsch., xxxix, 172.
LUNDBECK, Dipt. Grœnl., ii, 296, oc. in Greenland, syn., etc.
- merdaria** FABRICIUS, Ent. Syst., iv, 344 (*Musca*); Syst. Antl., 306.—Europe.
MEIGEN, Syst. Besch., v, 249.
DESVOIDY, Myodaires, 628 (*claripennis*). [Becker.]
MACQUART, Hist. Nat. Dipt., ii, 294.
ZETTERSTEDT, Dipt. Scand., v, 1970.
SCHINER, Fauna Austr., ii, 18.
BECKER, Berl. Ent. Zeitsch., xxxix, 169.
White Mts., N. H.—Slosson; Montreal—Chagnon.
- nigripes** HOLMGREN, see *litorea*.
- nubifera** COQUILLETT, Proc. U. S. N. M., xxiii, 612.—Pt. Barrow, Alaska.
- pallida** WALKER, List, iv, 981.—Martin Falls, Canada.
N. J.—Smith Cat.; White Mts., N. H.—Slosson.
- pubescens** WALKER, List, iv, 982.—Martin Falls, Canada.
- reses** GIGLIO-TOS, Boll. R. Univ. Torino, viii, 158; Ditt. del Mess., iv, 34.—Mex.
See *Cordylura rufina*.
- stercoraria** LINNÉ, Fauna Suecica, 2d edit., p. 458, No. 1861 (*Musca*).—Europe;
“habitat ubique in stercore humano, equino, bovino.”
RÉAUMUR, Mém. Hist. Ins., iv, 118, pl. xxvi.
DEGEER, Mém. Hist. Ins., vi, 42.
FABRICIUS, Spec. Ins., ii, 449 (*Musca*); Ent. Syst., iv, 345 (id.); Syst. Antl., 307 (id.).
MEIGEN, Syst. Besch., v, 248.
MACQUART, Hist. Nat. Dipt., ii, 393.
ZETTERSTEDT, Ins. Lapp., 721; Dipt. Scand., v, 1968.
SCHINER, Fauna Austr., ii, 18.
LOEW, in Silliman's Jour., oc. in N. A.
BECKER, Berl. Ent. Zeitsch., xxxix, 169, syn., etc.
COQUILLETT, Dipt. Commander Ids., 345, oc. on Copper Id., Alaska; Proc. Wash. Acad. Sci., ii, 453, oc. in Alaska, “almost cosmopolitan.”
HOWARD, Proc. Wash. Acad. Sci., ii, 599, note on.
Montreal—Chagnon; White Mts., N. H.—Slosson; N. J.—Smith Cat.; Axton, N. Y.—M. and H.
- suilla** FABRICIUS, Ent. Syst., iv, 343 (*Musca*); Syst. Antl., 206.—Europe.
FALLÉN, Scatomyzides, 5, var.
DESVOIDY, Myodaires, 625 (*ncmorosa*).
MEIGEN, Syst. Besch., v, 250 (*spurca*).
ZETTERSTEDT, Ins. Lapp., 721 (*glabrata*); Dipt. Scand., v, 1965 and 1967 the latter *spurca*).

SCHINER, Fauna Austr., II, 17 (*spurca*).

BECKER, Berl. Ent. Zeitsch., XXXIX, 167, syn., etc.

COQUILLETT, Proc. Wash. Acad. Sci., II, 454, oc. in Alaska, N. H., Col., Wash., and Canada.

Beulah, N. M.—Skinner.

thinobia THOMSON, Eugenie Resa, 563.—Cal.

Note.—Coquillett records this from Alaska, but he has evidently made a mistake, as he puts it under *Chirosia*, and Thomson says the cheeks are scarcely narrower than the eyes.

vittata VAN DER WULP, Biologia, Dipt., II, 350.—Mexico City, Mex.

vulpina COQUILLETT, Jour. N. Y. Ent. Soc., VI, 162.—Pt. Barrow, Alaska.

PLETHOCHÆTA.

COQUILLETT, Proc. U. S. N. M., XXIII, 613, 1901.

varicolor COQUILLETT, Proc. U. S. N. M., XXIII, 614.—Delaware Co., Pa.

PYCNOGLOSSA.

COQUILLETT, Proc. U. S. N. M., XXIII, 613, 1901.

flavipennis COQUILLETT, Proc. U. S. N. M., XXIII, 613.—Washington.

HETERONEURIDÆ.

KERTÉSZ, Annales Mus. Nat. Hung., I, 1903, 566, table of genera of the world.

HETERONEURA.

FALLÉN, Agromyzides, 2, 1823.

MEIGEN, Syst. Besch., VI, 126, 1830.

SCHINER, Fauna Austr., II, 37, 1864.

WILLISTON, Trans. Ent. Soc. Lond., 1896, 386, table of St. Vincent species, 1896.

CZERNY, Wien. Ent. Zeit., XXII, 61, 1903, revision of genus and family.

albimanus MEIGEN, Syst. Besch., VI, 128.—Europe.

SCHINER, Fauna Austr., II, 38, desc. and biology; larvæ reared from trunk of a decayed willow, in Europe.

LOEW, in Silliman's Jour., oc. in N. A.

CZERNY, Wien. Ent. Zeit., XXII, 69, 81, biology and desc.

N. J.—Smith Cat.

concinna WILLISTON, Trans. Ent. Soc. Lond., 1896, 387.—St. Vincent, W. I.

CZERNY, Wien. Ent. Zeit., XXII, 101, orig. desc. and notes.

flavipes WILLISTON, Trans. Ent. Soc. Lond., 1896, 387, pl. XIII, f. 135.—St. Vincent, W. I.

CZERNY, Wien. Ent. Zeit., XXII, 101, quotes orig. desc.; notes.

? **latifrons** LOEW, Wien. Ent. Monatsch., IV, 82; Cent., IV, 93.—D. C.

CZERNY, Wien. Ent. Zeit., XXII, 99, quotes desc.; genus doubtful.

N. J.—Smith Cat.

lumbalis WILLISTON, Trans. Ent. Soc. Lond., 1896, 388.—St. Vincent, W. I.

CZERNY, Wien. Ent. Zeit., XXII, 103, quotes desc.

melanostoma LOEW, Cent., V, 97.—N. Y.

CZERNY, Wien. Ent. Zeit., XXII, 77, quotes desc.

Note.—The "*Heteroncura flavifacies* Cog. MS." of Smith's N. J. Cat. is the female of this. [Cog. in litt.]

pictipes ZETTERSTEDT, Dipt. Scand., XII, 4816.—Europe.

CZERNY, Wien. Ent. Zeit., XXII, 80.

N. J.—Smith Cat.; White Mts., N. H.—Slosson.

pleuralis WILLISTON, Trans. Ent. Soc. Lond., 1896, 387.—St. Vincent, W. I.

CZERNY, Wien. Ent. Zeit., XXII, 102, quotes desc.

spectabilis LOEW, see *Clusia lateralis*.

valida WILLISTON, Trans. Ent. Soc. Lond., 1896, 388, pl. XIII, f. 136.—St. Vincent, W. I.

CZERNY, Wien. Ent. Zeit., XXII, 102, quotes desc.; notes.

? *xanthops* WILLISTON, Trans. Ent. Soc. Lond., 1896, 386.—St. Vincent, W. I.

CZERNY, Wien. Ent. Zeit., XXII, 100, quotes desc.; genus doubtful.

CLUSIA.

HALIDAY, Ann. Nat. Hist., II, 188, 1838.

SCHINER, Fauna Austr., II, 36, 1864.

CZERNY, Wien. Ent. Zeit., XXII, 86, 1903.

? *flava* MEIGEN, Syst. Besch., VI, 46.—Europe.

CZERNY, Wien. Ent. Zeit., XXII, 88.

Doubtfully recorded from N. J. in Smith Cat.

lateralis WALKER, List, IV, 1095 (? *Hclomyza*).—N. A.

LOEW, Wien. Ent. Monatsch., IV, 82 (*Heteroneura spectabilis*); Cent., IV, 92 (id.).—D. C. [Czerny, from Walker's type.]

CZERNY, Wien. Ent. Zeit., XXII, 89.

Montreal—Chagnon; doubtfully reported from N. J. in Smith Cat., as *Clusia spectabilis*. Province of Quebec—Fyles (*H. spectabilis*).

PERATOCHÆTUS.

RONDANI, Dipt. Ital. Prod., I, 119, 1856; Bull. Ent., VI, 1874, 8.

SCHINER, Novara, 236, 1868 (*Heterochroa*, in part).

CZERNY, Wien. Ent. Zeit., XXII, 1903, 96.

ornatus JOHNSON, Proc. Acad. Nat. Sci., 1895, 306 (*Heterochroa*).—Drayton's Id., Fla.

CZERNY, Wien. Ent. Zeit., XXII, 97, quotes desc.; gen. ref.

HELOMYZIDÆ.

LOEW, Zeitschr. f. Ent. zu Breslau, 1859, 1–80, monograph of the family in Europe.

HELOMYZA.

FALLÉN, Heteromyzides, 3, 1820.

RONDANI, Dipt. Ital. Prod., I, 102, 1856.

LOEW, Zeitsch. f. Ent. zu Breslau, 1859, 17.

SCHINER, Fauna Austr., II, 23, 1864.

RILEY and HOWARD, Ins. Life, II, 374, notes on a species found in caves in Indiana.

VAN DER WULP, Biologia, Dipt., II, 350, table of Mexican species.

apicalis LOEW, Cent., II, 86.—D. C.

assimilis LOEW, Cent., II, 87.—Huds. B. Terr.

borealis BOHEMAN, of Holmgren, see *Leria geniculata*.

distigma VAN DER WULP, Biologia, Dipt., II, 352, pl. IX, f. 5.—Guerrero, Mex.

fasciata WALKER, List, IV, 1094.—Nova Scotia.

iniens GIGLIO-TOS, Boll. R. Univ. Torino, viii, No. 158; Ditt. del Mess., iv, 35, f. 9, 10.—Mex.

VAN DER WULP, Biologia, Dipt., ii, 352, pl. ix, f. 3.—Guerrero, Mex.

lateralis WALKER, see *Clusia*.

latericia LOEW, Cent., ii, 89.—Conn. White Mts., N. H.—Slosson.

limbata THOMSON, Eugenes Resa. 569.—Cal.

Osten Sacken states that this name is preoccupied.

longipennis LOEW, Cent., ii, 90.—N. Y. N. J.—Smith Cat.

polystigma VAN DER WULP, Biologia, Dipt., ii, 353, pl. ix, f. 6.—Guerrero, Mex.

punctulata VAN DER WULP, Biologia, Dipt., ii, 352, pl. ix, f. 4.—Guerrero, Mex.

quinquepunctata SAY, Jour. Acad. Sci. Phil., iii, 101; Compl. Works, ii, 86.—

Cow Id., Missouri River.

WIEDEMANN, Auss. Zw., ii, 588.

LOEW, Cent., ii, 88 (*plumata*).—N. Y. [J. M. A.]

N. J.—Smith Cat.; Montreal—Chagnon.

tibialis ZETTERSTEDT, see *Leria*.

tincta WALKER, List, iv, 1092.—Nova Scotia.

Beulah, N. M.—Skinner.

zetterstedti LOEW, Zeitsch. f. Ent. zu Breslau, 1859, 63.—Europe.

OSTEN SACKEN, Cat., 175, oc. in N. A., "Loew in litt."

COQUILLETT, Proc. Wash. Acad. Sci., ii, 457, oc. in Alaska, Brit. Amer., and White Mts., N. H.

Beulah, N. M.—Skinner.

ALLOPHYLA.

LOEW, Zeitsch. f. Ent. zu Breslau, 1859, 43.

laevis LOEW, Cent., ii, 85.—English River, Canada.

N. J.—Smith Cat.; White Mts., N. H.—Slosson.

SCOLIOCENTRA.

LOEW, Zeitsch. f. Ent. zu Breslau, 1859, 43.

fraterna LOEW, Cent., iii, 51.—Sitka.

COQUILLETT, Proc. Wash. Acad. Sci., ii, 457, oc. in Alaska, Brit. Col., and Mt. Washington, N. H. (*Leria*).

helvola LOEW, Cent., ii, 80.—Ill. N. J.—Smith Cat.; Montreal—Chagnon.

ANOROSTOMA.

LOEW, Zeitsch. f. Ent. zu Breslau, 1859, 47.

marginata LOEW, Cent., ii, 81.—English River, Canada.

Beulah, N. M.—Skinner.

opaca COQUILLETT, Proc. U. S. N. M., xxiii, 614.—Los Angeles Co., Cal.

ECOTHEA.

HALIDAY, in Westwood's Introduction to Classif. of Ins., ii, App., 145, 1840.

LOEW, Zeitsch. f. Ent. zu Breslau, 1859, 54.

fenestralis FALLÉN, Heteromyzides, 5 (*Helomyza*).—Europe.

MEIGEN, Syst. Besch., vi, 56 (id.).

HALIDAY, in Westwood's Introd., ii, App., 145.

LOEW, Zeitsch. f. Ent. zu Breslau, 1859, 54.

SCHINER, Fauna Austr., ii, 30 (*Leria*).

OSTEN SACKEN, Cat., 176, oc. in N. A., "Loew in litt."—N. Y.

Montreal—Chagnon.

TEPHROCHLAMYS.

LOEW, Zeitsch. f. Ent. zu Breslau, 1859, 72.

✓ **rufiventris** MEIGEN, Syst. Besch., vi, 58 (*Helomyza*).—Europe.

LOEW, Zeitsch. f. Ent. zu Breslau, 1859, 77.

OSTEN SACKEN, Cat., 176, oc. in N. A., "Loew in litt."—Canada.

HOWARD, Proc. Wash. Acad. Sci., II, 600, oc. in Newport, Ore.

Montreal—Chagnon; White Mts., N. H.—Slosson.

LERIA.

DESVOIDY, Myodaires, 653, 1830.

MACQUART, Hist. Nat. Dipt., II, 412, 1835 (*Blephariptera*).

LOEW, Zeitsch. f. Ent. zu Breslau, 1859, 57 (*Blepharoptera*).

SCHINER, Fauna Austr., II, 28.

OSTEN SACKEN, Cat., 175 (*Blepharoptera*).

MIK, Wien. Ent. Zeit., XVII, 65, larvæ of a European species in bee-hives.

Note.—A list of the Arthropoda, including Diptera, found in the caves of Europe was published by Simon, Bedel, and Ganglbauer in Mittheilungen d. Section f. Naturkunde des Oesterreichischen Touristen-Club, Zweite Jahrgang, Wien, 1890.

biseta LOEW, Zeitsch. f. Ent. zu Breslau, 1859, 62 (*Blepharoptera*).—Europe.

OSTEN SACKEN, Cat., 175, oc. at Sitka,—“Loew in litt.”

White Mts., N. H.—Slosson.

carolinensis DESVOIDY, Myodaires, 629 (*Scatophaga*); Ann. Soc. Ent. France, 1841, 258, footnote, gen. ref.—Carolina.

cineraria LOEW, Zeitsch. f. Ent. zu Breslau, 1859, 67 (*Blepharoptera*); Cent., II, 83 (*B. armipes*).—Europe; Huds. Bay Terr. [O. S. Cat., 175.]

defessa OSTEN SACKEN, Bull. Geol. Surv., III, No. 1, p. 168, footnote and figs. (*Blepharoptera*).—Col., Ky., Ind.; inhabits caverns.

ALDRICH, 21st Rept. Geol. Ind., 1896, 188, same habit; notes (*Blepharoptera*).—Ind.

discolor LOEW, Cent., x, 78 (*Blepharoptera*).—White Mts., N. H.

geniculata ZETTERSTEDT, Ins. Lapp., 767 (*Helomyza*); Dipt. Scand., VI, 2451 (id.).—N. Europe.

STÆGER, Grœnl. Antl., 366, 1845, oc. in Greenland.

HOLMGREN, Ins. Nordgrœnl., 104, oc. in same; also refers part of his specimens to *Helomyza borealis* BOHEMAN, according to Lundbeck.

LUNDBECK, Dipt. Grœnl., II, 298, oc. in Greenland, etc.

humeralis ZETTERSTEDT, Ins. Lapp., 767; Dipt. Scand., VI, 2455 (both *Helomyza*).—N. Europe.

LUNDBECK, Dipt. Grœnl., II, 297, oc. in Greenland.

iners MEIGEN, Syst. Besch., vi, 57 (*Helomyza*).—Europe.

LOEW, Zeitsch. f. Ent. zu Breslau, 1859, 63 (*Blepharoptera*); Silliman's Jour., oc. in N. A.

latens ALDRICH, 21st Rept. Geol. Indiana, 1896, 188 (*Blepharoptera*).—Indiana, in caverns.

leucostoma LOEW, Cent., III, 54 (*Blepharoptera*).—Sitka.

COQUILLETT, Proc. Wash. Acad. Sci., II, 457, oc. in Alaska and White Mts., N. H.

lutea LOEW, Cent., III, 52 (*Blepharoptera*).—Sitka. Province of Quebec—Fyles.

pectinata LOEW, Cent., x, 79 (*Blepharoptera*).—Texas.

HUBBARD, Proc. Ent. Soc. Wash., IV, 362, found in Arizona in upper burrows of desert rodents.

- HOWARD, Proc. Wash. Acad. Sci., II, 600, note and oc.—Newport, Ore.
 MELANDER, Psyche, 1902, 328, captured at Austin, Texas, in bottle traps in nests of *Pogonomyrmex molefaciens* BUCKLEY.
pubescens LOEW, Cent., II, 82 (*Blepharoptera*).—Mass.
 ALDRICH, 21st Rept. Geol. Ind., 1896, 188 (id.).—Indiana, in cavern.
 N. J.—Smith Cat.
specus ALDRICH, 21st Rept. Geol. Ind., 1896, 189 (*Blepharoptera*).—Indiana, in caverns.
tibialis ZETTERSTEDT, Ins. Lapp., 767 (*Helomyza*); Dipt. Scand., VI, 2456 (id.).—N. Europe.
 STÆGER, Grœnl. Antl., 366 (id.), oc. in Greenland.
 HOLMGREN, Ins. Nordgrœnl., 104 (id.); Ent. Tidskr., IV, 177 (id.), oc. in Greenland and Nova Zembla.
 LUNDBECK, Dipt. Grœnl., II, 207, oc. in Greenland, etc.
tristis LOEW, Berl. Ent. Zeitsch., 1862, 225 (*Blepharoptera*).—Lake Winnipeg.
 COQUILLETT, Dipt. of Commander Ids., 345, oc. in Commander Ids., Alaska.
 N. J.—Smith Cat.

HETEROMYZA.

- FALLÉN, Heteromyzides, I, 1820.
 LOEW, Zeitsch. f. Ent. zu Breslau, 1859, 70.
 SCHINER, Fauna Austr., II, 33, 1864.
 COLLIN, Ent. Mo. Mag., 1901, 106 and 113, two articles; full discussion, which is reviewed by Hendel, Wien. Ent. Zeit., 1901, 151.
 ? *buccata* FALLÉN, Heteromyzides, 2.—Europe.
 MEIGEN, Syst. Besch., VI, 47.
 SCHINER, Fauna Austr., II, 34.
 LOEW, Zeitsch. f. Ent. zu Breslau, 1859, 70, does not belong to *Heteromyza*.
 WALKER, List, IV, 1088, oc. in Nova Scotia.
Note.—Collin and Hendel (vide supra) do not agree as to the proper genus to receive this species. As in all probability Walker was wrong in recognizing it from Nova Scotia, it seems unnecessary to discuss the question.
eriphides WALKER, List, IV, 1088.—Martin Falls, Canada.
flavipes WALKER, List, IV, 1089.—Martin Falls, Canada.
fusca MACQUART, Dipt. Exot., II, 3, 263, pl. xxv, f. 12.—N. A.

BORBORIDÆ.

APTILOTUS.

- MIK, Wien. Ent. Zeit., XVII, 206, 1898; XIX, 71, 1900.
politus WILLISTON, Dipt. of Death Valley Exped., 1893, 259 (*Aptertina*).—Death Valley, S. Cal.
 MIK, Wien. Ent. Zeit., 1900, 71, refers with a doubt to this genus, on the authority of Williston, in litt.
 COQUILLETT, Proc. Acad. Sci. Wash., II, 464, oc. at Farragut Bay, Alaska.
 Beulah, N. M.—Skinner.

LIMOSINA.

- MACQUART, Hist. Nat. Dipt., II, 571, 1835.
 SCHINER, Fauna Austr., II, 327, 1864.
 RONDANI, Bull. Soc. Ent. Ital., XII, 17, 1880.

- WILLISTON, Trans. Ent. Soc. Lond., 1896, 431, table of St. Vincent species.
- albipennis** RONDANI, Bull. Soc. Ent. Ital., xii, 39.—Europe.
- HOWARD, Proc. Wash. Acad. Sci., ii, 595, fig. and habits; bred from cowdung.—D. C., Va., W. Va., Md.
- HOWARD, Canad. Ent., xxxiii, 44, bred from cowdung.
- aldrichi** WILLISTON, Dipt. of Death Valley Exped., 259.—Argus Mts., Cal.
- atra** ADAMS, Kans. Univ. Sci. Bull., ii, 223.—Douglass Co., Kans.
- crassimanus** HALIDAY, Ent. Mag., iii, 328.—Europe.
- STENHAMMAR, Mon. Copromyz., 376.
- ZETTERSTEDT, Ins. Lapp., 771; Dipt. Scand., vi, 2503 (*pygmaea*).
- DUFOUR, Annales Soc. Ent. France, 1839 (*lugubris*).
- SCHINER, Fauna Austr., ii, 329, syn. and desc.
- WEBSTER, Canad. Ent., 1900, 213, oc. in N. A.—Ohio.
- HOWARD, Proc. Wash. Acad. Sci., ii, 595, fig., etc.—D. C., Md., W. Va.
- dolorosa** WILLISTON, Trans. Ent. Soc. Lond., 1896, 432.—St. Vincent, W. I.
- fontinalis** FALLÉN, Dipt. Suec., Suppl. ii, p. 16 (*Copromyza*).—Europe.
- STENHAMMAR, Mon. Copromyz., 371.
- MACQUART, Hist. Nat. Dipt., ii, 571.
- SCHINER, Fauna Austr., ii, 329.
- JOHNSON, Proc. Acad. Nat. Sci. Phil., 1895, 340, oc. in N. A.—St. Augustine, Fla.
- HOWARD, Proc. Wash. Acad. Sci., ii, 595, oc. and habits; reared from human excrement.—D. C., Va.
- Porto Rico—Coquillett; White Mts., N. H.—Slosson.
- illota** WILLISTON, Trans. Ent. Soc. Lond., 1896, 434, pl. xiv, f. 164 (*Borborus*).—St. Vincent, W. I.
- limosa** MEIGEN, Syst. Besch., vi, 207, pl. LXII, f. 20 (*Borborus*).—Europe.
- DESVOIDY, Myodaires, 802 (*Nerca riparia*).
- STENHAMMAR, Mon. Copromyz., 379.
- SCHINER, Fauna Austr., ii, 329.
- N. J.—Smith Cat.; Montreal—Chagnon; White Mts., N. H.—Slosson.
- lugubris** WILLISTON, Trans. Ent. Soc. Lond., 1896, 433, pl. xiv, f. 162.—St. Vincent, W. I. Porto Rico—Coquillett.
- perparva** WILLISTON, Trans. Ent. Soc. Lond., 1896, 433, pl. xiv, f. 161.—St. Vincent, W. I. Porto Rico—Coquillett.
- pumila** WILLISTON, Trans. Ent. Soc. Lond., 1896, 432, pl. xiv, f. 160.—St. Vincent, W. I.
- scutellaris** WILLISTON, Trans. Ent. Soc. Lond., 1896, 432.—St. Vincent, W. I.
- setigera** ADAMS, Kans. Univ. Sci. Bull., ii, 223.—Douglass Co., Kans., and Magdalen Mts., N. M.
- stygia** COQUILLETT, Amer. Naturalist, xxxi, 384, 1897.—Mammoth Cave, Ky., in decaying fungus (*Coprinus*).
- tenebrarum** ALDRICH, 21st Rept. Geol. Ind., 1896, 190, fig.—Ind., in caverns.
- venalicia** OSTEN SACKEN, Cat., 263 (*Borborus*).—Cuba and Africa; supposed to have been introduced into Cuba by the slave trade.
- WILLISTON, Trans. Ent. Soc. Lond., 1896, 434, pl. xiv, f. 163 (id.).—St. Vincent, W. I., and Brazil.
- COQUILLETT, Proc. U. S. N. M., xxii, 269, oc. in Porto Rico and Biscayne Bay, Fla.

BORBORUS.

- MEIGEN, Illig. Mag., ii, 276, 1803; Syst. Besch., vi, 198, 1830.
- FALLÉN, Heteromyzides, 5, 1820 (*Copromyza*).

- ZETTERSTEDT, Dipt. Scand., vi, 2475, 1847 (id.).
 SCHINER, Fauna Austr., ii, 320, 1864.
 RONDANI, Bull. Soc. Ent. Ital., xii, 6, 1880.
annulus WALKER, List, iv, 1129.—York Factory and Martin Falls, Canada.
 Popof Id., Alaska—Coquillett.
carolinensis DESVOIDY, Myodaires, 811 (*Scatophora*).—Carolina.
equinus FALLÉN, Heteromyzides, 6 (*Copromyza*).—Europe.
 STENHAMMAR, Mon. Copromyz., 340 (id.).
 DESVOIDY, Myodaires, 807 (*Sphærocera communis, fuliginosus, and copri-vora*).
 HALIDAY, Ent. Mag., iii, 335, 1836, larva and puparium.
 SCHINER, Fauna Austr., ii, 323, syn. and desc.
 LOEW, in Silliman's Jour., oc. in N. A.
 RONDANI, Bull. Soc. Ent. Ital., xii, 11.
 HOWARD, Proc. Wash. Acad. Sci., ii, 594, habits.
 Everywhere abundant on horse-dung, in which the larvæ live.
geniculatus MACQUART, Hist. Nat. Dipt., ii, 567.—Europe.
 HALIDAY, Ent. Mag., iii, 325 (*ater*).
 STENHAMMAR, Mon. Copromyz., 356, 98.
 SCHINER, Fauna Austr., ii, 322.
 HOWARD, Proc. Wash. Acad. Sci., ii, 594, oc. in N. A.—N. H., D. C., Md., W. Va.
 Hudsonian Zone, N. M.—Cockerell.
illotus WILLISTON, see *Limosina*.
venalicius OSTEN SACKEN, see *Limosina*.

SPHÆROCERA.

- LATREILLE, Hist. Nat. Crust. et Ins., xiv, 391, 1804.
 SCHINER, Fauna Austr., ii, 325, 1864.
 RONDANI, Bull. Soc. Ent. Ital., xii, 12, 1880.
bimaculata WILLISTON, Trans. Ent. Soc., 435, pl. xiv, f. 165.—St. Vincent, W. I.
pusilla FALLÉN, Heteromyzides, 8 (*Copromyza*).—Europe.
 MEIGEN, Syst. Besch., vii, 407 (*Borborus crenatus*; the *Borborus pusillus* of vi, 206, is a different species, according to Schiner).
 STENHAMMAR, Mon. Copromyz., 435.
 ZETTERSTEDT, Ins. Lapp., 770 (*Copromyza*); Dipt. Scand., vi, 2489 (*Cop. crenata*); 2490 (*Cop. pusilla*).
 SCHINER, Fauna Austr., ii, 326, syn. and desc.
 RONDANI, Bull. Soc. Ent. Ital., xii, 14, 1880.
 HOWARD, Proc. Wash. Acad. Sci., ii, 596, habits; reared from human excrement.—D. C.
subsultans FABRICIUS, Spec. Ins., ii, 444 (*Musca*); Syst. Antl., 264 (*Calobata*).—Europe.
 FALLÉN, Heteromyzides, 7 (*Copromyza*).
 MEIGEN, Syst. Besch., vi, 200, pl. LXII, f. 17.
 DESVOIDY, Myodaires, 809 (*Lordatia merdorum, stercoraria, cadaverina, and necrophaga*).
 SCHINER, Fauna Austr., ii, 326, syn. and desc.
 RONDANI, Bull. Soc. Ent. Ital., xii, 13.
 HOWARD, Proc. Wash. Acad. Sci., ii, 596, oc. in N. A., fig. and habits; Canad. Ent., xxxiii, 44, oc. and habits.—D. C., reared from human excrement; Va., reared from cow-dung.
 Montreal—Chagnon; White Mts., N. H.—Slosson.

PHYCODROMIDÆ.

CÆLOPA.

MEIGEN, Syst. Besch., vi, 194, 1830.

STENHAMMAR, Copromyz. Scand., 1853.

SCHINER, Fauna Austr., ii, 319, 1864.

→ **frigida** FALLÉN, Hydromyzides, 6.—Europe.

SCHINER, Fauna Austr., ii, 319.

HAGEN, Canad. Ent., xvii, 140, oc. in Mass.; breeds in dead and probably living seaweed on ocean beach.

COQUILLET, Dipt. of Commander Ids., 345, oc. in Alaska; Proc. Wash. Acad. Sci., ii, 460, same.

parvula HALIDAY, Ent. Mag., i, 167.—Europe.

ZETTERSTEDT, Dipt. Scand., vi, 2473 (*nitidula*).

STENHAMMAR, Copromyz. Scand., 6 (*nitidula*).

SCHINER, Fauna Austr., ii, 320, desc. and syn.

OSTEN SACKEN, Cat., 197, oc. in N. A. (id.).

COQUILLET, Proc. Wash. Acad. Sci., ii, 460, oc. in Kadiak, Alaska (id.).

SCIOMYZIDÆ.

SCIOMYZA.

FALLÉN, Sciomyzides, ii, 1820.

LOEW, Mon. N. A. Dipt., i, 104, 1862.

SCHINER, Fauna Austr., ii, 44, 1864.

VAN DER WULP, Biologia, Dipt., ii, 354, table of Mexican species, 1898.

albocostata FALLÉN, Sciomyzides, 12.—Europe.

ZETTERSTEDT, Dipt. Scand., v, 2098.

SCHINER, Fauna Austr., ii, 47.

LOEW, Silliman's Jour., oc. in N. A.

White Mts., N. H.—Slosson.

antica WALKER, Dipt. Saund., 400.—U. S.

apicata LOEW, Zeitsch. f. Ges. Naturwiss., 1876, 331.—Ft. Resolution, Canada.

glabricula FALLÉN, Sciomyzides, 15.—Europe.

MEIGEN, Syst. Besch., vi, 13.

ZETTERSTEDT, Dipt. Scand., v, 2091.

STÆGER, in Krøyer's Tidsskr., i, 40 (*angustipennis*). [Schiner.]

SCHINER, Fauna Austr., ii, 44.

COQUILLET, Proc. Wash. Acad. Sci., ii, 458, oc. in Popof Id., Alaska.

guttata COQUILLET, Proc. U. S. N. M., xxiii, 615.—Texas.

humilis LOEW, Zeitsch. f. Ges. Naturwiss., 1876, 330.—Texas.

St. Augustine, Fla.—Johnson.

infusca VAN DER WULP, Biologia, Dipt., ii, 355, pl. ix, f. 7.—Guerrero, Mex.

longipes LOEW, Zeitsch. f. Ges. Naturwiss., 1876, 328.—White Mts., N. H.

luctifera LOEW, Cent., i, 71; Mon. N. A. Dipt., i, 107.—Pa.

nana FALLÉN, Sciomyzides, 15.—Europe.

MEIGEN, Syst. Besch., vi, 18.

MACQUART, Hist. Nat. Dipt., ii, 408.

ZETTERSTEDT, Dipt. Scand., v, 2109.

SCHINER, Fauna Austr., ii, 49.

LOEW, Mon. N. A. Dipt., i, 104, oc. in N. A., etc.—Middle States.

VAN DER WULP, Biologia, Dipt., ii, 355, pl. ix, f. 8, oc. at Mexico City.

- N. J.—Smith Cat.; White Mts., N. H.—Slosson; Montreal—Chagnon;
 Fla.—Johnson; Ida.—J. M. A.
nigripalpus WALKER, List, iv, 1068.—Martin Falls, Canada.
obscuripennis BIGOT, see *Physogenua vittata*.
obtusa FALLÉN, Sciomyzides, 13.—Europe.
 MEIGEN, Syst. Besch., vi, 12.
 ZETTERSTEDT, Dipt. Scand., v, 2099.
 SCHINER, Fauna Austr., ii, 47.
 LOEW, Mon. N. A. Dipt., i, 105, oc. in N. A., etc.—Ill. N. J.—Smith Cat.
parallela WALKER, Dipt. Saund., 401.—U. S.
pubera LOEW, Mon. N. A. Dipt., i, 106.—Middle States. Seattle—J. M. A.
serena VAN DER WULP, Biologia, Dipt., ii, 356.—Mexico City and Vera Cruz.
squaleus VAN DER WULP, Biologia, Dipt., ii, 356, pl. ix, f. 10.—Mexico City.
strigata VAN DER WULP, Biologia, Dipt., ii, pl. ix, f. 9.—Vera Cruz and Mexico City.
tenuipes LOEW, Cent., x, 80.—Middle States.
trabeculata LOEW, Cent., x, 81.—Texas.
transducta WALKER, Trans. Ent. Soc., n. ser., v, 320.—N. A.
vittata HALIDAY, Ent. Mag., 1833.—Europe.
 OSTEN SACKEN, Cat., 177, oc. in N. A. on authority of "Loew in litt."
Note.—I have not succeeded in tracing this species any farther than the data of the O. S. catalogue.

ACTORA.

- MEIGEN, Syst. Besch., v, 403, 1826.
 ZETTERSTEDT, Dipt. Scand., vi, 2468, 1847.
 SCHINER, Fauna Austr., ii, 40, 1864.
? ferruginea WALKER, List, iv, 1066.—Nova Scotia.
Note.—This probably goes near *Scatophaga*; it has oral vibrissæ.

HETEROCHEILA.

- RONDANI, Dipt. Ital. Prod., i, 104, 1856 (*Heterostoma*, preoc.); ii, 13, 1857 (changed to *Heterochila*); Atta Soc. Ital. Sci. Nat., xi, 1868, 154 (changes again to *Exochila*, because *Heterochila* resembles other generic names).
 LOEW, Zeitsch. f. Ent. zu Breslau, 1859, 10 (*Ædoparca*).
 COQUILLET, Proc. Wash. Acad. Sci., ii, 458, notes; accepts *Ædoparca*.
glauca COQUILLET, Proc. Wash. Acad. Sci., ii, 458 (*Ædoparca*).—Metlakatla and Farragut Bay, Alaska.

DRYOMYZA.

- FALLÉN, Sciomyzides, 15, 1820.
 MEIGEN, Syst. Besch., v, 255, 1826.
 ZETTERSTEDT, Dipt. Scand., v, 2081, 1846.
 SCHINER, Fauna Austr., ii, 39, 1864.
aristalis COQUILLET, Proc. U. S. N. M., xxiii, 617.—Ottawa, Canada.
convergens WALKER, List, iv, 983.—Nova Scotia.
maculiceps WALKER, Trans. Ent. Soc., n. ser., v, 319.—Mex.
pallida DAY, see *Neuroctena anilis*.
simplex LOEW, Mon. N. A. Dipt., i, 128.—Middle States.

NEUROCTENA.

- RONDANI, Prodrôme Dipt. Ital., vii, pt. 3, 9, 1869.
anilis FALLÉN, Sciomyzides, 16 (*Dryomyza*).—Europe.

DESVOIDY, Myodaires, 619 (*Dryope liturata*).

MEIGEN, Syst. Besch., v, 257 (*Dryomyza*).

ZETTERSTEDT, Dipt. Scand., v, 2082 (id.).

SCHINER, Fauna Austr., II, 39, 1864.

LOEW, Mon. N. A. Dipt., I, 128, oc. in N. A.

DAY, Canad. Ent., 1881, 89 (*Dryomyza pallida*).—Conn. [Will.]

COQUILLETT, Proc. Wash. Acad. Sci., II, 457, oc. in Alaska, N. J., N. H., Wash.

N. J.—Smith Cat.; Montreal—Chagnon.

fumida COQUILLETT, Proc. U. S. N. M., XXIII, 616.—Beulah, N. M.

Beulah, N. M.—Skinner.

TETANOCERA.

DUMÉRI, Mag. Encyclopédique, IV, 433, 1798 (see Osten Sacken, Verh. Zool.-Bot. Ges., 1900, 450, where the original is quoted, etc.).

LATREILLE, Gen. Crust. et Ins., IV, 350, 1809.

MEIGEN, Syst. Besch., VI, 31, 1826.

ZETTERSTEDT, Dipt. Scand., v, 2122, 1846.

SCHINER, Fauna Austr., II, 52, 1864.

VAN DER WULP, Biologia, Dipt., II, 357, 1897, table of Mexican species.

acuticornis VAN DER WULP, Biologia, Dipt., II, 358, pl. IX, f. 13.—N. Sonora, Mex.

✓**ambigua** LOEW, Cent., v, 95.—Me.

arcuata LOEW, Wien. Ent. Monatsch., III, 292; Mon. N. A. Dipt., I, 115.—Middle States.

N. J.—Smith Cat.; White Mts., N. H.—Slosson; Axton, N. Y.—M. and H.

boscii DESVOIDY, Myodaires, 608.—Carolina.

LOEW, Mon. N. A. Dipt., I, 108, said to be unrecognizable.

NEEDHAM, Bull. 47, N. Y. State Mus. Nat. Hist., 575, identified from Saranac Inn, N. Y.

canadensis MACQUART, Dipt. Exot., II, 3, 181, pl. XXIV, f. 5.—Canada.

Beulah, N. M.—Skinner.

clara LOEW, Mon. N. A. Dipt., I, 109.—Trenton Falls, N. Y.

DAY, Canad. Ent., XIII, 85, note and oc.—Mass., Conn.

N. J.—Smith Cat.; Saranac Inn, N. Y.—Needham.

✓**combinata** LOEW, Wien. Ent. Monatsch., III, 295; Mon. N. A. Dipt., I, 116.—Middle States.

DAY, Canad. Ent., XIII, 85, notes and oc.—Mass., Conn., Pa.

U. S. and Canada—O. S.; Montreal—Chagnon; N. J.—Smith Cat.

costalis LOEW, Mon. N. A. Dipt., I, 118.—Ill. White Mts., N. H.—Slosson.

flavescens LOEW, Stett. Ent. Zeit., VIII, 123; Wien. Ent. Monatsch., III, 291; Mon. N. A. Dipt., I, 113.—Carolina.

OSTEN SACKEN, Cat., 177, note.—West. N. Y.; may be only a larger *arcuata*.

N. J.—Smith Cat.; White Mts., N. H.—Slosson; Axton, N. Y.—M. and H.

lineata DAY, Canad. Ent., XIII, 88.—Conn.

montana DAY, Canad. Ent., XIII, 87.—Wyo.

pallida LOEW, Wien. Ent. Monatsch., III, 294; Mon. N. A. Dipt., I, 113.—Middle States.

N. J.—Smith Cat.; Montreal—Chagnon.

pectoralis WALKER, Trans. Ent. Soc., n. ser., v, 321.—Mex.

✓**pictipes** LOEW, see *umbrarum*.

✓**plebeia** LOEW, Mon. N. A. Dipt., I, 120.—Middle States.

- DAY, Canad. Ent., XIII, 87, note and oc.—Wash.
 Atlantic States and Canada—O. S.; White Mts., N. H.—Slosson; N. J.—Smith Cat.; Montreal—Chagnon; Axton, N. Y.—M. and H.; Province of Quebec—Fyles.
- plumifera** VAN DER WULP, Biologia, Dipt., II, 359.—Durango, Mex.
- plumosa** LOEW, Stett. Ent. Zeit., VIII, 201; Wien. Ent. Monatsch., III, 296; Mon. N. A. Dipt., I, 121.—Sitka; Middle States.
- MACQUART, Dipt. Exot., II, 3, 180, pl. XXIV, f. 7 (*vicina*, preoc.).—Philadelphia. [Lw.]
- WALKER, List, IV, 1086 (*struthio*).—Martin Falls, Canada; N. A. [Lw.]
- DAY, Canad. Ent., XIII, 87, note and oc.—Conn.
- COQUILLETT, Proc. Wash. Acad. Sci., II, 457, oc. in Alaska, Cal., and U. S. generally. N. J.—Smith Cat.; White Mts., N. H.—Slosson; Beulah, N. M.—Skinner.
- pubescens** DAY, Canad. Ent., XIII, 86.—Wash.
- rotundicornis** LOEW, Cent., I, 70; Mon. N. A. Dipt., I, 123.—North Red. R.; English R., Canada. White Mts., N. H.—Slosson.
- saratogensis** FITCH, 1st N. Y. Rept., 772.—N. Y.
- LOEW, Wien. Ent. Monatsch., III, 256; Mon. N. A. Dipt., I, 119.—Middle States.
- Atlantic States and Canada—O. S.; Montreal—Chagnon; N. J.—Smith Cat.; White Mts., N. H.—Slosson; Saranac Inn, N. Y.—Needham; Axton, N. Y.—M. and H.
- setosa** COQUILLETT, Proc. U. S. N. M., XXIII, 615.—New Bedford and Barnstable, Mass.; Ga.
- sparsa** LOEW, Mon. N. A. Dipt., I, 117.—Middle States.
- N. J.—Smith Cat.; Montreal—Chagnon; White Mts., N. H.—Slosson.
- spenicornis** LOEW, Cent., VI, 86.—Cuba.
- St. Augustine and Ormond, Fla., and Jamaica—Johnson.
- spreta** VAN DER WULP, Biologia, Dipt., II, 358.—Jalisco and Mexico City, Mex.
- straminata** VAN DER WULP, Biologia, Dipt., II, 357, pl. IX, f. 11.—Guerrero, Mex.
- triangularis** LOEW, Cent., I, 69; Mon. N. A. Dipt., I, 122.—North Red. R.; English R., Canada. White Mts., N. H.—Slosson.
- umbrarum** LINNÉ, Fauna Suecica, 458, no. 1864 (*Musca*).—Europe.
- MEIGEN, Syst. Besch., VI, 39 (*Dictya*).
- SCHINER, Fauna Austr., II, 56.
- LOEW, Wien. Ent. Monatsch., III, 292 (*pictipcs*); Mon. N. A. Dipt., I, 111 (id.).—D. C.
- DAY, Canad. Ent., XIII, 85, note and oc.—Conn., Pa., Kans., Wash. (id.).
- GIGLIO-TOS, Ditt. del Mess., IV, 38, notes.—Morelia, Mex. (id.).
- VAN DER WULP, Biologia, Dipt., II, 357, pl. IX, f. 12 (id.).—Mexico, several places.
- NEEDHAM, Bull. 47, N. Y. State Mus. Nat. Hist., 580, pl. XIV, f. 9-14 (id.), life hist.; the larvæ float at surface of water in creeks, among vegetation. Colored figs. of larva, puparium, and adult.—Adirondacks, N. Y.
- KERTÉSZ, Termész. Füzetek, 1901, 419, asserts absolute identity of *pictipcs* with *umbrarum*; places in his genus *Monochatophora*.
- Montreal—Chagnon; White Mts., N. H.—Slosson.
- valida** LOEW, Mon. N. A. Dipt., I, 110.—No locality; O. S. gives N. Y., Quebec. White Mts., N. H.—Slosson; Montreal—Chagnon.

SEPEDON.

- LATREILLE, Hist. Nat. Crust. et Ins., XIV, 305, 1804.
- FALLÉN, Scionyzides, 2, 1820.

- MEIGEN, Syst. Besch., vi, 27, 1830.
 SCHINER, Fauna Austr., ii, 64, 1864.
 LOEW, Mon. N. A. Dipt., i, 124, 1862.
 VAN DER WULP, Biologia, Dipt., ii, 359, table of Mexican species, 1897.
armipes LOEW, Wien. Ent. Monatsch., iii, 298; Mon. N. A. Dipt., i, 126.—Middle States.
 WEBSTER, Canad. Ent., 1900, 213, oc. in Ohio. N. J.—Smith Cat.
 Common in the upper Mississippi Valley—J. M. A.
fuscipennis LOEW, Wien. Ent. Monatsch., iii, 299; Mon. N. A. Dipt., i, 124.—Middle States.
 DAY, Canad. Ent., xiii, 88, notes and oc.—Wash.
 NEEDHAM, Bull. 47, N. Y. State Mus. Nat. Hist., 577, pl. xiv, f. 1-8, life hist.; larva floats at surface of water in creek, among vegetation. Colored figs. of larva, puparium, and adult.—Adirondacks, N. Y.
 N. J.—Smith Cat.
macropus WALKER, List, iv, 1078.—Jamaica.
 LOEW, Mon. N. A. Dipt., i, 125.—Middle States. Porto Rico—Roeder.
nigriventris VAN DER WULP, Biologia, Dipt., ii, 359.—Vera Cruz, Mex.
nubilipennis VAN DER WULP, Biologia, Dipt., ii, 360, pl. ix, f. 14.—Mazatlan and Vera Cruz, Mex.
præmiosus GIGLIO-TOS, Boll. R. Univ. Torino, viii, No. 158; Ditt. del Mess., iv, 38.—Morelia, Mex.
pusillus LOEW, Wien. Ent. Monatsch., iii, 299; Mon. N. A. Dipt., i, 127.—Middle States.
 N. J.—Smith Cat.; White Mts., N. H.—Slosson.
relictus VAN DER WULP, Biologia, Dipt., ii, 359.—Mexico City.

SAPROMYZIDÆ.

- WILLISTON, Ent. News, v, 196, 1894, table of and notes on species.
 BECKER, Berl. Ent. Zeitsch., xl, 171-264, 1895, a monograph of the European genera and species.

LONCHÆA.

- FALLÉN, Orthalides, 25, 1820.
 SCHINER, Fauna Austr., ii, 88, 1864.
 BECKER, Berl. Ent. Zeitsch., xl, 1895, 322, full discussion of the genus and the European species.
 PACKARD, Guide to Study of Insects, 412, figs. and life history of "*? Lonchæa* sp.," the larva of which makes blister-like swellings on twigs of willow at Brunswick, Me.; 5th Rept. U. S. Ent. Comm., 598, notice of same.
albitarsis ZETTERSTEDT, Ins. Lapp., 754; Dipt. Scand., vi, 2351.—Europe.
 COQUILLETT, Proc. Wash. Acad. Sci., ii, 458, oc. in Sitka, Alaska.
brevicornis WILLISTON, Trans. Ent. Soc. Lond., 1896, 379.—St. Vincent, W. I.
cærulea WALKER, List, iv, 1004.—Ga.
chalybea WIEDEMANN, Auss. Zw., ii, 476.—S. A.
 SCHINER, Novara, 282, note.
 VAN DER WULP, Tijdschr. v. Ent., 1883, 55.—Brazil.
 GIGLIO-TOS, Ditt. del Mess., iv, 52, oc. in Tuxpango, Mex.
deutsch ZETTERSTEDT, Ins. Lapp., 753; Dipt. Scand., vi, 2348.—Europe.
 COQUILLETT, Proc. Wash. Acad. Sci., ii, 458, oc. in Sitka, Alaska.
discrepans WALKER, Trans. Ent. Soc., n. ser., v, 322.—Mex.

- glaberrima* WIEDEMANN, Auss. Zw., II, 475.—W. I.
Lake Worth, Fla.—Johnson.
- hyalipennis* ZETTERSTEDT, Dipt. Scand., VI, 2350.—Europe.
COQUILLET, Proc. Wash. Acad. Sci., II, 459, oc. in Yakutat and Virgin Bay, Alaska (*hyalinipennis*).
- longicornis* WILLISTON, Trans. Ent. Soc. Lond., 1896, 378.—St. Vincent, W. I.
COQUILLET, Proc. U. S. N. M., XXII, 258, oc. in Porto Rico.
- nigra* WIEDEMANN, Auss. Zw., II, 476.—Brazil.
BIGOT, Sagra's Cuba, 827, oc. in Cuba.
White Mts., N. H.—Slosson.
- orchidearum* TOWNSEND, Trans. Amer. Ent. Soc., XXII, 80.—Jamaica; bred from flower-stem of an orchid, *Oncidium luridum*.
- polita* SAY, Jour. Acad. Sci. Phil., VI, 188; Compl. Works, II, 371.—Ind.
HOWARD, Proc. Wash. Acad. Sci., II, 586, reared from human excrement.
Mass.—Harris Cat., quoted by O. S.
- ✓ *rufitarsis* MAQUART, Dipt. Exot., Suppl. IV, 300, pl. XXVIII, f. 2.—N. A.
? WALKER, List, IV, 1004 (*tarsata* FALL.).—Martin Falls, Canada. [O. S., with a doubt.]
GIGLIO-TOS, Ditt. del Mess., IV, 53, oc., etc.—Mex.
N. J.—Smith Cat., "Larvæ and pupæ in decayed wood"; White Mts., N. H.—Slosson; Axton, N. Y.—M. and H.

PALLOPTERA.

- FALLÉN, Ortalides, 1820, 23.
SCHINER, Fauna Austr., II, 107, 1864.
BECKER, Berl. Ent. Zeitsch., XL, 1895, 313, discussion of genus, with table of European species.
- arcuata* FALLÉN, Ortalides, 25.—Sweden.
MEIGEN, Syst. Besch., V, 267 (*Sapromyza inusta*).
ZETTERSTEDT, Dipt. Scand., VI, 2275.
SCHINER, Fauna Austr., II, 108.
White Mts., N. H.—Slosson (det. by Coq.).
- jucunda* LOEW, Cent., III, 55.—Sitka.
COQUILLET, Proc. Wash. Acad. Sci., II, 459, oc. in Alaska, Idaho and Col.
- superba* LOEW, Cent., I, 75.—Pa. Quebec—O. S.; White Mts., N. H.—Slosson; Province of Quebec—Fyles.
- terminalis* LOEW, Cent., III, 54.—Sitka.

PACHY CERINA.

- MACQUART, Hist. Nat. Dipt., II, 511, 1835.
SCHINER, Fauna Austr., II, 93, 1864.
BECKER, Berl. Ent. Zeitsch., 1895, XL, 250.
- clavipennis* COQUILLET, Canad. Ent., XXX, 280.—St. Augustine, Fla.
- dolorosa* WILLISTON, in Adams's paper, Kans. Univ. Sci. Bull., II, 37.—Col.
- verticalis* LOEW, Cent., I, 82.—Fla.
TOWNSEND, Canad. Ent., 1893, 303 (*Sapromyza vulgaris* FITCH). [Kahl.]
N. J.—Smith Cat.; Florida—Johnson; "Over the greater part of the U. S."—Williston; Beulah, N. M.—Skinner.
- Note*.—Mr. Kahl informs me that *verticalis* and the true *vulgaris* FITCH belong to the same genus, which is neither *Pachycerina* nor *Sapromyza*.

PHYSOGENUA.

- MACQUART, Dipt. Exot., Suppl. III, 60, 1847 (*Physegenua*).
 SCHINER, Novara, 277, 1868, notes.
 BECKER, Berl. Ent. Zeitsch., XL, 1895, 255.
ferruginea SCHINER, Novara, 277.—S. A.
 GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 158, 1893 (*urine*); Ditt. del Mess., IV, 50 (*urina*).—Tuxpango, Mex.
 WILLISTON, Ent. News, 1894, 197, syn., with a doubt; Kans. Univ. Quart., VI, 8, oc. in Brazil, and syn.
? nigra WILLISTON, Trans. Ent. Soc. Lond., 1896, 379, pl. XIII, f. 133; Kans. Univ. Quart., VI, 8, refers to Becker's "genus incertum," Berl. Ent. Zeitsch., XL, pl. I, f. 12.—St. Vincent, W. I.; Brazil.
obscuripennis BIGOT, see *vittata*.
urina GIGLIO-TOS, see *ferruginea*.
variegata LOEW, see *vittata*.
vittata MACQUART, Dipt. Exot., Suppl. III, 60, pl. VII, f. 2.—Brazil.
 BIGOT, in Sagra's Cuba, 826 (*Sciomyza obscuripennis*).—Cuba. [Roeder.]
 LOEW, Cent., I, 83 (*Lauxania variegata*).—Cuba.
 SCHINER, Novara, 277, oc. in S. A. (*variegata*).
 ROEDER, Stett. Ent. Zeit., 1885, 349.—Porto Rico.
 BECKER, Berl. Ent. Zeitsch., XL, 255, pl. I, f. 4, 5, full discussion.
 Jamaica—Johnson.

GRIPHONEURA.

- SCHINER, Novara, 281, 1868.
 BECKER, Berl. Ent. Zeitsch., XL, 256, 1895.
imbuta WIEDEMANN, Auss. Zw., II, 474.—Brazil.
 SCHINER, Novara, 281, pl. III, f. 5.—S. A.
 GIGLIO-TOS, Ditt. del Mess., IV, 52, oc. in Tuxpango, Mex.

LAUXANIA.

- LATREILLE, Hist. Nat. Crust. et Ins., XIV, 390, 1804.
 MEIGEN, Syst. Besch., V, 295, 1826.
 SCHINER, Fauna Austr., II, 94, 1864.
 BECKER, Berl. Ent. Zeitsch., XL, 246, 1895.
 COQUILLETT, Canad. Ent., XXX, 279, 1898, table of new species.
albiseta COQUILLETT, Canad. Ent., XXX, 280.—Santa Cruz Mts., Cal.
albovittata LOEW, Cent., II, 79.—Cuba. Porto Rico—Roeder; Jamaica—Johnson.
argyrostoma WIEDEMANN, Auss. Zw., II, 471.—W. I.
 SCHINER, Novara, 282, oc. in S. A.
cineracea COQUILLETT, Jour. N. Y. Ent. Soc., X, 179.—Biscayne Bay, Fla.
cylindricornis FABRICIUS, Ent. Syst., IV, 332 (*Musca*); Syst. Antl., 212.—Europe.
 FALLÉN, Orthalides, 27.
 MEIGEN, Syst. Besch., V, 296.
 MACQUART, Hist. Nat. Dipt., II, 508.
 ZETTERSTEDT, Dipt. Scand., VI, 2360.
 SCHINER, Fauna Austr., II, 95.
 LOEW, in Silliman's Mag., oc. in N. A.
 BECKER, Berl. Ent. Zeitsch., XL, 247, full bibliog., etc.
 COQUILLETT, Proc. Wash. Acad. Sci., II, 460, oc. in Alaska, and from Nova Scotia to Ga. Axton, N. Y.—M. and H.
? elisæ MEIGEN, Syst. Besch., V, 297.—Europe.
 SCHINER, Fauna Austr., II, 95.

- WALKER, List, iv, 1003, oc. in Nova Scotia; which is very doubtful.
- eucephala** LOEW, Cent., x, 83.—Texas. Miss.—J. M. A.
- facialis** COQUILLETT, Canad. Ent., xxx, 279.—Fla., Ga.
- femoralis** LOEW, Cent., i, 89.—Ga. Kans., Tenn.—J. M. A.
- flaviceps** LOEW, Cent., vii, 91.—D. C.
- flavipennis** FABRICIUS, Syst. Antl., 207 (*Scatophaga*).—S. A.
WIEDEMANN, Auss. Zw., ii, 471.—S. A.
- SCHINER, Novara, 281, note.—Brazil, Colombia.
- ? MACQUART, Dipt. Exot., Suppl. iv, 300, pl. xxviii, f. 3 (*ruficornis*).—
Bahia, Brazil. [G.-T., with a doubt.]
- GIGLIO-TOS, Ditt del Mess., iv, 82, oc. in Tuxpango, Mex.
- frontalis** LOEW, see *Sapromyza*.
- gracilipes** LOEW, Cent., i, 85.—Pa. N. J.—Smith Cat.; Kans.—J. M. A.
- latipennis** COQUILLETT, Canad. Ent., xxx, 279.—Fla., Ga. N. J.—Smith Cat.
- longicornis** COQUILLETT, Jour. N. Y. Ent. Soc., x, 178.—Williams and Oracle,
Ariz.; Mesilla Park, N. M.
- lutea** COQUILLETT, Jour. N. Y. Ent. Soc., x, 179.—L. Worth and Biscayne Bay,
Fla.
- manuleata** LOEW, Cent., i, 88.—Pa.
- muscaria** LOEW, Cent., i, 87.—Cuba.
SCHINER, Novara, 382, oc. in S. A.
- WILLISTON, Trans. Ent. Soc. Lond., 1896, 383, doubtful oc. in St. Vincent.
N. J.—Smith Cat.
- nasalis** THOMSON, Eugen. Resa, 568.—Cal.
- nigrimanus** COQUILLETT, Jour. N. Y. Ent. Soc., x, 179.—Williams, Ariz.
- obscura** LOEW, Cent., i, 80.—English R., Canada; Pa.
N. J.—Smith Cat.; Montreal—Chagnon; White Mts., N. H.—Slosson.
- opaca** LOEW, Cent., i, 84.—Fla. N. J.—Smith Cat.; Fla., several places—John-
son.
- planiscutum** THOMSON, see *Sapromyza*.
- quadrissetosa** THOMSON, see *Sapromyza*.
- trivittata** LOEW, Cent., i, 90.—Ga. Georgetown, Fla.—Johnson.
- variceps** COQUILLETT, Jour. N. Y. Ent. Soc., x, 178.—Williams, Ariz.
- variegata** LOEW, see *Physogenua*.

SAPROMYZA.

- FALLÉN, Ortalides, 1820, 29.
- MEIGEN, Syst. Besch., v, 258, 1826.
- SCHINER, Fauna Austr., ii, 96, 1864.
- BECKER, Berl. Ent. Zeitsch., xl, 179, 1895.
- WILLISTON, Trans. Ent. Soc. Lond., 1896, 379, table of St. Vincent species.
- TOWNSEND, Canad. Ent., xxiv, 301, table of species, 1892.
- F. LYNCH A., Ann. Soc. Cient. Argentina, xxxiv, 253-303, 1893, table and
desc. of all American species.
- COQUILLETT, Canad. Ent., xxx, 277, partial table of species, 1898.
- amida** WALKER, List, iv, 988.—Ga.
- angustipennis** WILLISTON, Trans. Ent. Soc. Lond., 1896, 381, pl. xiii, f. 134.—
St. Vincent, W. I.
- apta** WALKER, see *lateclimbata*.
- bipunctata** SAY, Jour. Acad. Sci. Phil., vi, 178; Compl. Works, ii, 367.—Mex.
WILLISTON, Kans. Univ. Quart., vi, 11, doubtful oc. in Rio Janeiro.
- bispina** LOEW, Cent., i, 79.—Nebr. N. J.—Smith Cat.
- brachysoma** COQUILLETT, Canad. Ent., xxx, 278; Proc. Wash. Acad. Sci., ii, 460,
oc.—White Mts., N. H.; Muir Inlet and Sitka, Alaska.

cincta LOEW, Cent., I, 81.—Cuba.

GIGLIO-TOS, Ditt. del Mess., iv, 48, note.—Tuxpango, Mex.

Porto Rico—Roeder; White Mts., N. H.—Slosson.

Probably is same as *vulgaris* FITCH.—Williston.

compedita LOEW, Cent., I, 76.—Pa. N. J.—Smith Cat.; Montreal—Chagnon;

White Mts., N. H.—Slosson; Pacific Coast—Will.

connexa SAY, Jour. Acad. Sci. Phil., vi, 177; Compl. Works, II, 367.—Ind.

contigua FABRICIUS, Ent. Syst., iv, 347 (*Musca*); Syst. Antl., 206 (*Scatophaga*).
—Brazil.

WIEDEMANN, Auss. Zw., II, 450.—Brazil.

SCHINER, Novara, 279, oc. in Brazil.

GIGLIO-TOS, Ditt. del Mess., iv, 49, oc. in Mexico.

crevecœuri COQUILLETT, Canad. Ent., xxx, 278.—Onaga, Kans.

decora LOEW, Cent., v, 96.—Lake George, N. Y. Canada—O. S.

N. J.—Smith Cat.; Montreal—Chagnon; collected in Wis. by Wheeler—
J. M. A.

exul WILLISTON, Trans. Ent. Soc. Lond., 1896, 382.—St. Vincent, W. I.

Rio Janeiro—Will.

flaveola COQUILLETT, Canad. Ent., xxx, 279.—Seattle, Wash.; Ore.; Los Angeles
Co., Cal.

fraterna LOEW, Cent., I, 77.—Pa. N. J.—Smith Cat.

frontalis LOEW, Wien. Ent. Monatsch., II, 14 (*Lauvania*).—Europe.

SCHINER, Fauna Austr., II, 96 (id.).

LOEW, Silliman's Jour., oc. in N. A.

BECKER, Berl. Ent. Zeitsch., XL, 240, gen. ref. and desc.

geminata FABRICIUS, Syst. Antl., 331 (*Dictya*).—S. A.

WIEDEMANN, Auss. Zw., II, 450.—S. A.

GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 158 (*plagosa*); Ditt. del Mess.,
iv, 47.—Tuxpango, Mex.

WILLISTON, Ent. News, 1894, 197, syn.; Kans. Univ. Quart., VI, 9, notes.

glaucia COQUILLETT, Jour. N. Y. Ent. Soc., x, 177.—Marlboro, Md.

houghii COQUILLETT, Canad. Ent., xxx, 277.—Mass.

hubbardii COQUILLETT, Canad. Ent., xxx, 277.—Chiric Mts., Ariz.

ingrata WILLISTON, Trans. Ent. Soc. Lond., 1896, 385.—St. Vincent, W. I.

innuba GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 158; Ditt. del Mess., iv, 49.
—Mex.

N. J.—Smith Cat.

latelimbata MACQUART, Dipt. Exot., Suppl. v, 120, pl. vi, f. 18.—Brazil.

WALKER, Trans. Ent. Soc., II, ser., v, 54 (*apta*).—Mex. [G.-T.]

SCHINER, Novara, 279, as syn. of *rubescens* MACQ.

GIGLIO-TOS, Ditt. del Mess., iv, 49, notes on the syn., etc.—Tuxpango, Mex.

lineata WILLISTON, Trans. Ent. Soc., 1896, 385.—St. Vincent, W. I.

livingstoni COQUILLETT, Canad. Ent., xxx, 278.—Vancouver Id.

longipennis FABRICIUS, Ent. Syst., iv, 323 (*Musca*); Syst. Antl., 299 (id.).—Eu-
rope.

MEIGEN, Syst. Besch., v, 300 (*Lauvania*).

DESVOIDY, Myodaires, 646 (*Mincttia luctuosa*).

SCHINER, Fauna Austr., II, 97.

VAN DER WULP, Tijdschr. v. Ent., 1867, oc. in N. A. N. J.—Smith Cat.

lupulina FABRICIUS, Mant. Insect., II, 344 (*Musca*); Ent. Syst., iv, 323 (id.);
Syst. Antl., 298 (id.).—Europe.

MEIGEN, Syst. Besch., v, 301 (*Lauvania*).

DESVOIDY, Myodaires, 647 (*Mincttia testacea*).

- SCHINER, Fauna Austr., II, 97.
 LOEW, in Silliman's Jour., oc. in N. A.
 BECKER, Berl. Ent. Zeitsch., XL, 213.
 COQUILLET, Proc. Wash. Acad. Sci., II, 460, oc. in Alaska, Kans., Col., N. C.
 N. J.—Smith Cat.; Pacific Coast—Will.; White Mts., N. H.—Slosson; Axton, N. Y.—M. and H.
- macula** LOEW, Cent., x, 82.—Texas.
 WILLISTON, Ent. News, 1894, 197, may be syn. of *octopunctata*; Trans. Ent. Soc. Lond., 1896, 380, oc. in St. Vincent, W. I., and Brazil.
 N. J.—Smith Cat.
- magna** COQUILLET, Canad. Ent., xxx, 279.—D. C.
- notata** FALLÉN, Ortalides, 30.—Europe.
 MEIGEN, Syst. Besch., v, 271.
 MACQUART, Hist. Nat. Dipt., II, 402 (*duodecimpunctata*).
 LOEW, Dipt. Beitr., III, 40.
 SCHINER, Fauna Austr., II, 99.
 VAN DER WULP, Tijdschr. v. Ent., 1867, oc. in N. A.
 BECKER, Berl. Ent. Zeitsch., XL, 203.
 White Mts., N. H.—Slosson; Axton, N. Y.—M. and H.
- ocellaris** TOWNSEND, see *vulgaris*.
- octopunctata** WIEDEMANN, Auss. Zw., II, 454.—W. I.
 ROEDER, Stett. Ent. Zeit., 1885, 349, pt. desc.—Porto Rico.
 See *macula*.
- octovittata** WILLISTON, Trans. Ent. Soc. Lond., 1896, 382.—St. Vincent, W. I.
- philadelphica** MACQUART, Dipt. Exot., II, 3, 191.—N. A.
 Atlantic States—O. S.; Quebec—Wulp; White Mts., N. H.—Slosson; N. J.—Smith Cat.
- planiscutum** THOMSON, Eugen. Resa, 586 (*Laurania*).—Cal.
 Identified from Ore. by Coquillett, in the Oregon Agricultural College collection.
- puella** WILLISTON, Trans. Ent. Soc. Lond., 1896, 381.—St. Vincent, W. I.
- puncticeps** COQUILLET, Jour. N. Y. Ent. Soc., x, 178.—Mt. Washington, N. H.
- quadrilineata** LOEW, Cent., I, 78.—Pa.
 N. J.—Smith Cat.; Montreal—Chagnon; White Mts., N. H.—Slosson.
- quadrisetosa** THOMSON, Eugen. Resa, 569 (*Laurania*).—Cal.
- resinosa** WIEDEMANN, Auss. Zw., II, 456.—Ga. Fla.—Johnson; Axton, N. Y.—M. and H.
- rotundicornis** LOEW, Cent., III, 56.—Sitka. White Mts., N. H.—Slosson.
- sheldoni** COQUILLET, Canad. Ent., xxx, 277.—N. Y.
- slossonæ** COQUILLET, Canad. Ent., xxx, 277.—Biscayne Bay, Fla.
- sonax** GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 158, 1893; Ditt. del Mess., IV, 48.—Tuxpango, Mex.
- sordida** WIEDEMANN, Auss. Zw., II, 456.—W. I.
 WILLISTON, Trans. Ent. Soc. Lond., 1896, 383, doubtfully recognized from St. Vincent, W. I.
 COQUILLET, Proc. U. S. N. M., XXII, 258, oc. in Porto Rico, Fla. and Ga.
- sororia** WILLISTON, Trans. Ent. Soc. Lond., 1896, 385.—St. Vincent, W. I.
- stata** GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 158, 1893; Ditt. del Mess., IV, 47.—Orizaba, Mex.
- stictica** LOEW, Cent., III, 58.—D. C. Texas—O. S.
- tenuispina** LOEW, Cent., I, 80.—Nebr.
- umbrosa** LOEW, Cent., III, 57.—D. C.
 N. J.—Smith Cat.; Ormond, Fla.—Johnson.

- venusta** WILLISTON, Trans. Ent. Soc. Lond., 1896, 384.—St. Vincent, W. I.
vinnula GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 158, 1893; Ditt. del Mess., IV, 48.—Tuxpango, Mex.
vittigera COQUILLET, Jour. N. Y. Ent. Soc., x, 178.—Ga.
vulgaris FITCH, 1st N. Y. Rept., 300, pl. I (*Chlorops*).—N. Y.
 VAN DER WULP, Tijdschr. v. Ent., x, 159 (*plumata*).—Wis. [O. S.]
 TOWNSEND, Canad. Ent., 1893, 303 (*ocellaris*).—N. M. [Kahl.]
 F. LYNCH A., Ann. Soc. cient. Argentina, XXXIV, 283.—Argentina
 WILLISTON, Trans. Ent. Soc. Lond., 1896, 384, notes.—St. Vincent, W. I.
 COCKERELL, Jour. N. Y. Ent. Soc., VI, 206, oc at Agency, N. M.
 OSTEN SACKEN, Cat., 261, note 311.
 Pacific Coast—Will.; N. J.—Smith Cat.
 See note to *Pachyccrina verticalis*.

CHÆTOCÆLIA.

- GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 158, 1893; Ditt. del Mess., IV, 50, 1895.
palens GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 158; Ditt. del Mess., IV, 51, f. 14.—Orizaba, Mex.
vergens GIGLIO-TOS, Ditt. del Mess., IV, 51, f. 15.—Tuxpango, Mex.

TRIGONOMETOPUS.

- MACQUART, Hist. Nat. Dipt., II, 419, 1835.
 LOEW, Centuries, App., p. 290, note.
 WILLISTON, Manual, 127, footnote, 1896.
 CZERNY, Wien. Ent. Zeit., XXII, 62, discusses relations, 1903.
punctipennis COQUILLET, Canad. Ent., XXX, 280.—Col.
rotundicornis WILLISTON, Trans. Ent. Soc. Lond., 1896, 388, pl. XIII, f. 137.—St. Vincent, W. I.
vittatus LOEW, Cent., VIII, 98; App., p. 290, note.—Ga.

ORTALIDÆ.

- VAN DER WULP, Biologia, Dipt., II, 377, 1897, def. and table of genera of the Mexican region, including *Rhopalomera* and *Toxotrypana*.

PYRGOTA.

- WIEDEMANN, Auss. Zw., II, 580, 1830.
 MACQUART, Dipt. Exot., II, 3, 197, 1843 (*Oxycephala*).
 SCHINER, Fauna Austr., II, 66, 1864.
 LOEW, Mon. N. A. Dipt., III, 72, 1872.
chagnoni JOHNSON, Canad. Ent., 1900, 246.—Montreal Id., Canada.
fenestrata MACQUART, Dipt. Exot., Suppl. IV, 281, pl. XXVI, f. 1 (*Oxycephala*).—No locality; Osten Sacken gives N. A. in Cat., 181.
filiola LOEW, Zeitsch. f. Ges. Naturwiss., 1876, 332.—Tex.
 OSTEN SACKEN, West. Dipt., 343 (*debilis*).—Ky. [O. S.]
 Ormond, Fla.—Johnson.
lugens VAN DER WULP, Biologia, Dipt., II, 378, pl. x, f. 1.—Guatemala.
pterophorina GERSTÆCKER, Stett. Ent. Zeit., XXI, 190, pl. II, f. 6.—Carolina.
 LOEW, Mon. N. A. Dipt., III, 81, transl. of desc., with notes.
undata WIEDEMANN, Auss. Zw., II, 581, pl. x, f. 6.—N. A.

MACQUART, Hist. Nat. Dipt., II, 423, pl. XVIII, f. 23; Dipt. Exot., II, 3, 198, pl. XXVI, f. 6 (*Oxyccera fuscipennis*).—N. A.; no locality for the second, but America is given in Suppl. IV, 281.

GRAY, in Griffith's Animal Kingdom, pl. CXXV, f. 5 (*Myopa nigripennis*), 1832. [Gerstaecker.]

HARRIS, Ins. Inj. to Vegetation, 3d ed., 610, f. 268 (*Sphecomyia*).—Mass. GERSTAECKER, Stett. Ent. Zeit., XXI, 188, pl. II, f. 7.

LOEW, Mon. N. A. Dipt., III, 77, syn., etc.—U. S.

Mass. to Kans.—O. S. Montreal—Chagnon; N. J.—Smith Cat.: Province of Quebec—Fyles.

I collected it at light in Lawrence, Kans.—J. M. A.

valida HARRIS, Ins. Inj. to Veg., 3d ed., 611 (*Sphecomyia*).—Mass.

? MACQUART, Dipt. Exot., Suppl., I, 210, pl. XVIII, f. 12 (*Oxycephala maculipennis*).—Galveston, Tex. [O. S., with a query.]

LOEW, Neue Beitr., II, 22 (*millepuncta*); Mon. N. A. Dipt., III, 74 (id.).—D. C., N. Y., Ill.

N. and Mid. States—O. S.; N. J.—Smith Cat.

vespertilio GERSTAECKER, Stett. Ent. Zeit., XXI, 189, pl. II, f. 8.—Carolina.

LOEW, Mon. N. A. Dipt., III, 79, transl. and notes.

OSTRACOCCELIA.

GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 158, 1893; Ditt. del Mess., IV, 44, 1895.

mirabilis GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 158; Ditt. del Mess., IV, 44, f. 13.—Mex.

VAN DER WULP, Biologia, Dipt., II, 392, pl. IX, f. 27.—Guerrero, Vera Cruz, and Tampico, Mex.

AMPHICNEPHES.

LOEW, Mon. N. A. Dipt., III, 83, 1873.

fasciola COQUILLETT, Jour. N. Y. Ent. Soc., VIII, 21.—Onaga, Kans.

pertusus LOEW, Mon. N. A. Dipt., III, 84, pl. VIII, f. 1.—Carolina, D. C., Conn.

WIEDEMANN, Auss. Zw., II, 506 (*Trypeta pulla*).—No locality.

OSTEN SACKEN, Berl. Ent. Zeitsch., 1883, 298, syn., and remarks on the right of priority of species published without locality.

N. J.—Smith Cat.; Georgetown and Ormond, Fla.—Johnson.

stellatus VAN DER WULP, Biologia, Dipt., II, 390, pl. X, f. 23.—Guerrero and Yucatan, Mex.

AUTOMOLA.

LOEW, Mon. N. A. Dipt., III, 118, 1873.

VAN DER WULP, Biologia, Dipt., II, 390, 1899.

atomaria WIEDEMANN, Auss. Zw., II, 461 (*Ortalis*).—Brazil.

VAN DER WULP, Biologia, Dipt., II, 390, pl. X, f. 22.—Vera Cruz, Mex.

PLATYSTOMA.

MEIGEN, Illig. Mag., II, 277, 1803; Syst. Besch., V, 390, 1826.

SCHINER, Fauna Austr., II, 82, 1864.

? **mexicanum** GIGLIO-TOS, Boll. R. Univ. Torino, No. 158, 1893; Ditt. del Mess., IV, 46.—Tuxpango, Mex.; the question is raised in the second reference.

RIVELLIA.

DESVOIDY, Myodaires, 729, 1830.

SCHINER, Fauna Austr., II, 80, 1864.

LOEW, Mon. N. A. Dipt., III, 44 and 87, 1873.

VAN DER WULP, Biologia, Dipt., II, 381, 1899, table of Mexican species.

basilaris COQUILLETT, Jour. N. Y. Ent. Soc., VII, 21.—Col., Kans.

boscii DESVOIDY, Myodaires, 730.—Carolina.

? MACQUART, Hist. Nat. Dipt., II, 459 (*Urophora interrupta*).—N. A.
[Coquillett; query by J. M. A.]

LOEW, Mon. N. A. Dipt., III, 93, obs.; not recognized.

brevifasciata JOHNSON, Ent. News, XI, 326.—Atco, N. J.; Tifton, Ga.

conjuncta LOEW, Mon. N. A. Dipt., III, 88, pl. VIII, f. 3.—Md.

VAN DER WULP, Biologia, Dipt., II, 383, pl. x, f. 11.—Morelos and Guerrero, Mex.; Costa Rica. N. J.—Smith Cat.

connecta VAN DER WULP, Biologia, Dipt., II, 383, pl. x, f. 12.—Guerrero, Mex.

flavimanus LOEW, Mon. N. A. Dipt., III, 92, pl. VIII, f. 7.—Nebr.

? VAN DER WULP, Tijdschr. v. Ent., x, 154, pl. v, f. 10 (*Herina metallica*).

—Wis. [O. S., with a query.]

OSTEN SACKEN, Cat., 182, note.

N. J.—Smith Cat.; Montreal—Chagnon.

flexuosa VAN DER WULP, Biologia, Dipt., II, 383, pl. x, f. 13.—Guerrero, Mex.

floridana JOHNSON, Canad. Ent., 1900, 247.—L. George, Fla.

ligata SAY, Jour. Acad. Sci. Phil., VI, 83; Compl. Works, II, 368 (*Ortalis*).—Mex.

LOEW, Mon. N. A. Dipt., III, 197, quotes desc.: gen. ref.

longicornis VAN DER WULP, Biologia, Dipt., II, 384, pl. x, f. 15.—Guerrero, Mex.

micans LOEW, Mon. N. A. Dipt., III, 94.—Texas.

VAN DER WULP, Biologia, Dipt., II, 382, pl. x, f. 9, oc. and note.—N. Sonora, Mex.

Ga.—Williston MS.

occulta VAN DER WULP, Biologia, Dipt., II, 382, pl. x, f. 8.—Guerrero, Mex.

pallida LOEW, Mon. N. A. Dipt., III, 95, pl. VIII, f. 8.—D. C.

HOWARD, Proc. Wash. Acad. Sci., II, 585, note.—D. C.

N. J.—Smith Cat.; St. Augustine and Georgiana, Fla.—Johnson.

pilosula VAN DER WULP, Biologia, Dipt., II, 384, pl. x, f. 14.—Tabasco, Mex.

quadrifasciata MACQUART, Hist. Nat. Dipt., II, 433 (*Hcrina*).—N. A.

LOEW, Mon. N. A. Dipt., III, 90, pl. VIII, f. 5.—Nebr.

N. J.—Smith Cat.; Fla., several places—Johnson; Mont.—Williston MS.

submetallica VAN DER WULP, Biologia, Dipt., II, 382, pl. x, f. 10.—Guerrero, Mex.

variabilis LOEW, Mon. N. A. Dipt., III, 91, pl. VIII, f. 6.—D. C.; locality questioned by O. S. N. J.—Smith Cat.; Fla., several places—Johnson; Ga.—Williston MS.

✓**viridulans** DESVOIDY, Myodaires, 729.—N. A.

MACQUART, Dipt. Exot., Suppl. v, 123, pl. VII, f. 5 (*Herina rufitarsis*).—Baltimore, Md. [Lw.]

FITCH, 1st N. Y. Report, 65 (*Tephritis melliginis*).—N. Y.; attending the apple aphid.

WALKER, List, IV, 992, 993 (*Ortalis quadrifasciata* FITCH and *Ortalis otrada*).—Both N. A.

COQUILLETT, Jour. N. Y. Ent. Soc., VIII, 22, would also place *Ortalis bipars* WALKER here as a synonym; but the description shows several discrepancies.

LOEW, Mon. N. A. Dipt., III, 88, pl. VIII, f. 4, desc., syn., etc.—N. Y., Ga., D. C.

Quebec—V. d. Wulp; N. J.—Smith Cat.

MYRMECOMYIA.

DESVOIDY, Myodaires, 721, 1830.

MACQUART, Hist. Nat. Dipt., II, 483, 1835 (*Michogaster*; amended into *Mischogaster* by V. d. Wulp).

LOEW, Mon. N. A. Dipt., III, 99, 1873.

myrmecoides LOEW, Wien. Ent. Monatsch., IV, 83 (*Cephalia*): Mon. N. A. Dipt., III, 100, pl. VIII, f. 9.—D. C.

nitidipennis VAN DER WULP, Biologia, Dipt., II, 385, pl. x, f. 16 16a (*Mischogaster*).—Panama.

HIMAROËSSA.

LOEW, Mon. N. A. Dipt., III, 85, 1873.

pretiosa LOEW, loc. cit., pl. VIII, f. 2.—Cuba.

STENOPTERINA.

MACQUART, Hist. Nat. Dipt., II, 453 (*Stenopterina*), 1835.

LOEW, Mon. N. A. Dipt., III, 96 and 22, 1873.

VAN DER WULP, Biologia, Dipt., II, 380, 1898, table of Mexican species.

alligata VAN DER WULP, Biologia, Dipt., II, 381, pl. x, f. 7.—Paso del Macho, Mex.

bicolor JOHNSON, see *varia*.

mexicana MACQUART, Dipt. Exot., II, 3, 208, pl. XXIX, f. 2 (*Herina*); Suppl., I, 209, pl. XVIII, f. 8 (*Herina splendens*).—Mex.; Colombia.

LOEW, Mon. N. A. Dipt., III, 97 (*cærulescens*).—Texas.

VAN DER WULP, Biologia, Dipt., II, 380, pl. x, f. 6, oc., syn., and notes.—Guerrero, Jalisco, and N. Yucatan, Mex.

varia COQUILLET, Jour. N. Y. Ent. Soc., VIII, 25.—Fla.

JOHNSON, Canad. Ent., 1900, 246 (*bicolor*).—St. Augustine, Fla. [Johnson, in litt.]

BRICINNIA.

WALKER, Trans. Ent. Soc., n. ser., v, 57, 1857 (original p. 324).

LOEW, Mon. N. A. Dipt., III, 202, 1873, quotes desc., and states that it did not appear until 1861.

SNOW, in Williston's Manual, 118, 1896, cannot separate from *Stenopterina*.

flexivitta WALKER, loc. cit.—Mex.

LOEW, Mon. N. A. Dipt., III, 203, quotes desc.

GIGLIO-TOS, Ditt. del Mess., IV, 45, recognized from Mex.

BRICINIELLA.

GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 158, 1893; Ditt. del Mess., IV, 45, 1895.

cyanea GIGLIO-TOS, locis citatis.—Cuernavaca, Mex.

CEPHALIA.

MEIGEN, Syst. Besch., v, 293, 1826.

SCHINER, Fauna Austr., II, 176, 1864.

fenestrata COQUILLET, Jour. N. Y. Ent. Soc., VIII, 24.—Onaga, Kans.

? *fulvicornis* BIGOT, Annales, 1886, 386.—Cal. Query by Bigot.

? *maculipennis* BIGOT, Annales, 1886, 385.—Rocky Mts. Query by Bigot.

TRITOXA.

LOEW, Mon. N. A. Dipt., III, 102, 1873.

cuneata LOEW, Mon. N. A. Dipt., III, 107, pl. VIII, f. 11.—Nebr.

? *rufipes* MEIGEN, Syst. Besch., v, 294.—Europe.

SCHINER, Fauna Austr., II, 177.

WILLISTON, Trans. Amer. Ent. Soc., XIII, 307, doubtful oc. in Va.

Mont.—Williston MS.; Beulah, N. M.—Skinner.

flexa WIEDEMANN, Auss. Zw., II, 483 (*Trypeta*).—"Aus Neugeorgien."

WALKER, Dipt. Saund., 383, pl. VIII, f. 10 (*Trypeta arcuata*).—U. S. [Lw.]

SHIMER, Practical Entomologist, I, 4, figs.; biology,—the larvæ live in the bulbs of onions, hence the species is called the "Onion Fly."

SHIMER, American Entomologist, II, 110, further notes on same.

LOEW, Mon. N. A. Dipt., III, 102, pl. VIII, f. 10.—N. Wisconsin R.; Ill.

N. J.—Smith Cat.

incurva LOEW, Mon. N. A. Dipt., III, 104, pl. VIII, f. 12.—Ill.; this has the same habits as the preceding, and was included as a variety in the articles on habits just mentioned.

Kans., D. C., Texas—O. S.; N. J.—Smith Cat.

CAMPTONEURA.

MACQUART, Dipt. Exot., II, 3, 200, 1843.

LOEW, Mon. N. A. Dipt., III, 108, 1873.

picta FABRICIUS, Ent. Syst., IV, 355 (*Musca*); Syst. Antl., 318 and 330 (*Tephritis conica* and *Dictya picta*).—Both N. A. [Wd.]

WIEDEMANN, Auss. Zw., II, 489 (*Trypeta*).—N. A.

DESVOIDY, Myodaires, 720 (*Delphinia thoracica*). [Lw.]

MACQUART, Dipt. Exot., II, 3, 201, pl. XXVII, f. 4; Suppl. v, 124 (*Urophora nigricentris*).—N. A.; Baltimore.

LOEW, Mon. N. A. Dipt., III, 109, pl. VIII, f. 13.—U. S., common.

OSTEN SACKEN, Cat., 259, note 298, syn. of Macquart.

N. J.—Smith Cat.; Fla., several places—Johnson.

IDANA.

LOEW, Mon. N. A. Dipt., III, 115, 1873.

marginata SAY, Jour. Acad. Sci. Phil., VI, 183; Compl. Works, II, 368 (*Ortalis*).—Ind.

LOEW, Mon. N. A. Dipt., III, 115, pl. VIII, f. 16.—Va., Pa.

N. J.—Smith Cat.

DIACRITA.

GERSTÆCKER, Stett. Ent. Zeit., XXI, 195, 1860.

LOEW, Mon. N. A. Dipt., III, 111, 1873.

BIGOT, Bull. Soc. Ent. France, 1877, 38 (*Carlottamyia*).

æmula LOEW, Mon. N. A. Dipt., III, 114, pl. VIII, f. 15.—Cal.

costalis GERSTÆCKER, Stett. Ent. Zeit., XXI, 197, pl. II, f. 10.—Oaxaca, Mex.

LOEW, Mon. N. A. Dipt., III, 111, pl. VIII, f. 14.—Mex.

BIGOT, Bull. Soc. Ent. France, 1877, 38 (*Carlottamyia marcens*); syn. by himself, loc. cit., 1877, cxxxii.—Mex. Huastec, Mex.—Giglio-Tos.

TETROPISMENUS.

LOEW, Zeitsch. f. Ges. Naturwiss., 1876, 333.

hirtus LOEW, loc. cit.—San Francisco, Cal.

TEPHRONOTA.

LOEW, Zeitsch. f. Ges. Naturwiss., 1868, 6; Mon. N. A. Dipt., III, 119, 1873.

canadensis JOHNSON, Ent. News, XIII, 144, figs.—Rigaud, Quebec, Canada.

ruficeps VAN DER WULP, Tijdschr. v. Ent., X, 156, pl. v, f. 11 (*Herina*).—Wis.

? WALKER, List, iv, 1020 (*Trypeta narytia*).—Fla. [Syn. with a query by Osten Sacken, Cat., p. 260; see also Coquillett, Jour. N. Y. Ent. Soc., VIII, 22.]

LOEW, Mon. N. A. Dipt., III, 123, pl. VIII, f. 24 (name changed to *humilis*, on account of alleged preoccupation).—N. Y., Va., Tex.

JOHNSON, Ent. News, XIII, 143, oc. in Fla., Ga., Va., and N. J.
Montreal—Chagnon.

MELIERIA.

DESVOIDY, Myodaires, 715, 1830.

MACQUART, Hist. Nat. Dipt., II, 437, 1835 (*Cerorxys*).

SCHINER, Fauna Austr., II, 73, 1864 (id.).

LOEW, Mon. N. A. Dipt., III, 125, 1873 (id.).

COQUILLETT, Jour. N. Y. Ent. Soc., VIII, 22, 1900, syn.

cana LOEW, Berl. Ent. Zeitsch., II, 374, 1858 (*Ortalis*); Mon. N. A. Dipt., III, 129, pl. VIII, f. 22 (*Cerorxys*).—Yukon R., Alaska and Nebr.

OSTEN SACKEN, Cat., 184, note (*Cerorxys*).

COQUILLETT, Proc. Wash. Acad. Sci., II, 459, oc. in Alaska and Col.

obscuricornis LOEW, Mon. N. A. Dipt., III, 126, pl. VIII, f. 20 (*Cerorxys*).—Nebr.

ochricornis LOEW, Mon. N. A. Dipt., III, 126, pl. VIII, f. 21 (*Cerorxys*).—N. Wisconsin R. Montreal—Chagnon.

? **philadelphica** DESVOIDY, Myodaires, 715 (*Meckelia*).—Phil. Query by J. M. A. A very doubtful species.

similis LOEW, Mon. N. A. Dipt., III, 127, pl. VIII, f. 23.—Conn., Quebec.

OSTEN SACKEN, Cat., 184, note.

Saranac Inn, N. Y.—Needham.

ANACAMPTA.

LOEW, Zeitsch. f. Ges. Naturwiss., 1868, 7; Mon. N. A. Dipt., III, 129, 1873.

latiuscula LOEW, Mon. N. A. Dipt., III, 130, pl. VIII, f. 19.—Cal.

VAN DER WULP, Biologia, Dipt., II, 393, pl. x, f. 26.—Mexico City.

North and South Idaho—J. M. A.

pyrrhocephala LOEW, Zeitsch. f. Ges. Naturwiss., 1876, 335.—Cal.

TETANOPS.

FALLÉN, Ortalides, 1820, p. 2.

MEIGEN, Syst. Besch., v, 353, 1826.

SCHINER, Fauna Austr., II, 72, 1864.

LOEW, Mon. N. A. Dipt., III, 119, 1873.

integra LOEW, Mon. N. A. Dipt., III, 121, pl. VIII, f. 18.—Ill.

luridipennis LOEW, Mon. N. A. Dipt., III, 119, pl. VIII, f. 17.—Nebr. N. J.—Smith Cat.

polita COQUILLETT, Jour. N. Y. Ent. Soc., VIII, 22.—Col.

rufifrons VAN DER WULP, Biologia, Dipt., II, 391, pl. x, f. 25.—Mazatlan and Guerrero, Mex.

vittifrons VAN DER WULP, Biologia, Dipt., II, 391, pl. x, f. 24.—Guerrero and Morelos, Mex.

ORTALIS.

FALLÉN, Ortalides, 18, 1820.

SCHINER, Fauna Austr., II, 69, 1864.

Note.—Only a few problematical species are attributed to this genus, which in the strict sense probably does not occur in North America.

bipars WALKER, Trans. Ent. Soc., n. ser., v, 326.—U. S.

OSTEN SACKEN, Cat., 188, not found in the British Museum.

See note under *Rivellia viridulans*.

costalis WALKER, List, iv, 995.—Martin Falls, Canada.

? *diopsides* WALKER, List, iv, 995.—Martin Falls, Canada. Query by Walker.

Belongs perhaps to the *Ulidinæ*—LOEW, in O. S. Cat.

See note under *Scoptera vibrans*.

platycnema THOMSON, see *Euxesta*.

PTEROCALLA.

RONDANI, Ins. ditt. Brasil., Torino, 1848, 23.

LOEW, Mon. N. A. Dipt., III, 132, 1873.

VAN DER WULP, Biologia, Dipt., II, 393, 1899, table of Mexican species.

bella GIGLIO-TOS, Ditt. del Mess., IV, 39, f. 11.—Orizaba, Mex.

costalis VAN DER WULP, Biologia, Dipt., II, 396, pl. XI, f. 5, 6.—Guerrero, Mex.

fenestrata VAN DER WULP, Biologia, Dipt., II, 394, pl. x, f. 30.—Vera Cruz and Tabasco, Mex.

obscura WIEDEMANN, Auss. Zw., II, 499 (*Trypeta*).—Brazil.

MACQUART, Dipt. Exot., II, 3, 202, pl. XXVIII, f. 5 (*Camptoneura*).—Guiana.

SCHINER, Novara, 286 and 287, notes.—S. A.

LOEW, Mon. N. A. Dipt., III, 13.—S. A.

GIGLIO-TOS, Ditt. del Mess., IV, 41, oc. in Tuxpango, Mex.

ocellata FABRICIUS, Syst. Antl., 330 (*Dictya*).—S. A.

WIEDEMANN, Auss. Zw., II, 495 (*Trypeta*).—S. A.

MACQUART, Dipt. Exot., Suppl. I, 206, pl. XVIII, f. 4 (*Platystoma*).—Colombia, S. A.

RONDANI, Ins. Ditt. Brasil., 1848, 24, 40.—Brazil.

SCHINER, Novara, 286.—S. A.

LOEW, Mon. N. A. Dipt., III, 13 and 60.—S. A.

GIGLIO-TOS, Ditt. del Mess., IV, 40, oc. in Orizaba, Mex.

VAN DER WULP, Biologia, Dipt., II, 395, pl. XI, f. 2.—Vera Cruz, Mex.

quadrata VAN DER WULP, Biologia, Dipt., II, 394, pl. XI, f. 1.—Tabasco, Mex.

strigula LOEW, Mon. N. A. Dipt., III, 133, pl. VIII, f. 30.—Ga.

tarsata SCHINER, Novara, 287.—S. A.

GIGLIO-TOS, Ditt. del Mess., IV, 40, oc. and note.—Orizaba, Mex.

VAN DER WULP, Biologia, Dipt., II, 395, pl. XI, f. 3, 4.—Tabasco, Mex.

CALLOPISTRIA.

LOEW, Mon. N. A. Dipt., III, 140, 1873.

annulipes MACQUART, Dipt. Exot., Suppl. v, 121 (*Platystoma*).—Baltimore, Md.

LOEW, Mon. N. A. Dipt., III, 141, pl. VIII, f. 27.—United States; very common.

N. J.—Smith Cat.

MYENNIS.

DESVOIDY, Myodaires, 717, 1830.

LOEW, Mon. N. A. Dipt., III, 142, 173.

scutellaris WIEDEMANN, Auss. Zw., II, 484 (*Trypeta*).—Mex.

LOEW, Mon. N. A. Dipt., I, 60, 92 (? *Trypeta*); III, 143.—Mex.

GIGLIO-TOS, Ditt. del Mess., IV, 39, oc. in Tuxpango, Mex.

XANTHACRONA.

VAN DER WULP, Biologia, Dipt., II, 392, 1899.

bipustulata VAN DER WULP, loc. cit., pl. x, f. 29.—Mazatlan, Mex.

PARAGORGOPIS.

GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 158, 1893; Ditt. del Mess., IV, 41, 1895.

maculata GIGLIO-TOS, locis citatis, f. 12.—Tuxpango, Mex.

PSEUDOTEPHRITIS.

JOHNSON, Ent. News, XIII, 144, 1902, change of name.

LOEW, Mon. N. A. Dipt., III, 134, 1873 (*Stictocephala*, preoc.).

corticalis LOEW, Mon. N. A. Dipt., III, 136, pl. VIII, f. 28 (*Stictocephala*).—N. Y.

cribellum LOEW, Mon. N. A. Dipt., III, 134, pl. VIII, f. 26 (*Stictocephala*).—Nebr.

Province of Quebec—Fyles; Minn.—J. M. A.

cribrum LOEW, Mon. N. A. Dipt., III, 135, pl. VIII, f. 25 (*Stictocephala*).—Middle States.

vau SAY, Jour. Acad. Sci. Phil., VI, 184; Compl. Works, II, 369 (*Ortalis*).—Ohio.

LOEW, Mon. N. A. Dipt., III, 138, pl. VIII, f. 29 (*Stictocephala*).—United States.

JOHNSON, Ent. News, 1899, 220 (id.), larva common under bark, Overbrook, N. J.

Montreal—Chagnon.

PSAIROPTERA.

WAHLBERG, K. Vetensk. Akad. Abhandl., 1838, 2.

SCHINER, Fauna Austr., II, 80, 1864.

sp. undet. is reported from White Mts., N. H., by Mrs. Slosson; Mr. Kahl showed me specimens in the Univ. of Kans. coll., which he collected in Kans.; Snow, in Williston's Manual, 116, mentions N. M. as a locality.

CEDOPA.

LOEW, Berl. Ent. Zeitsch., 1867, 287; Mon. N. A. Dipt., III, 146, 1873.

capito LOEW, Berl. Ent. Zeitsch., 1867, 287; Mon. N. A. Dipt., III, 146, pl. IX, f. 1-3.—Nebr. Ariz.—Williston MS.

elegans GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 158, 1893; Ditt. del Mess., IV, 42.—Oaxaca, Mex.

PARÆDOPA.

COQUILLETT, Jour. N. Y. Ent. Soc., VIII, 22, 1900.

punctigera COQUILLETT, loc. cit.—Catalina Spr. and Gailuro Mts., Ariz.; Santa Fe, N. M.

EURYCEPHALA.

ROEDER, Berl. Ent. Zeitsch., XXV, Heft 2, 1881.

myopæformis ROEDER, loc. cit.—Sacramento, Cal.

STICTOMYIA.

BIGOT, Bull. Soc. Ent. France, 1885, clxvi.

longicornis BIGOT, Bull. Soc. Ent. France, 1885, clxvi.—Mex.

VAN DER WULP, Biologia, Dipt., II, 380, pl. x, f. 5, notes.—Mex.

punctata COQUILLETT, Jour. N. Y. Ent. Soc., VIII, 23.—Mesilla Valley, N. M.

NOTOGRAMMA.

LOEW, Berl. Ent. Zeitsch., 1867, 289; Mon. N. A. Dipt., III, 148, 1873.

stigma FABRICIUS, Ent. Syst., Suppl. 563 (*Musca*); Syst. Antl., 278 and 303 (*Dacus obtusus* and *Musca stigma*).—W. I.

WIEDEMANN, AUSS. ZW., II, 565, syn. and desc. (*Ulidia*).—S. A.

LOEW, Berl. Ent. Zeitsch., XI, 289, pl. II, f. 5 (*cimiciformis*); Mon. N. A.

Dipt., III, 148, pl. IX, f. 5.—Cuba.

CHRY SOMYZA.

FALLÉN, Scenopinii, 1817, 3.

SCHINER, Wien. Ent. Monatsch., VI, 151, 1862 (*Chloria*); Fauna Austr., II, 85, 1864 (id.).

demandata FABRICIUS, Ent. Syst. Suppl., 564 (*Musca*); Syst. Antl., 324 (*Tephritis*).—Sweden.

FALLÉN, Scenopinii, 4 (*Chrysomyza splendida*).

MEIGEN, Syst. Besch., v, 386 (*Ulidia*).

MACQUART, Hist. Nat. Dipt., II, 504 (*Ulidia bicolor*).

ZETTERSTEDT, Dipt. Scand., VI, 2369 (*Ulidia*).

LOEW, Dipt. Beitr., 1845, 28 (*Ulidia*).

SCHINER, Fauna Austr., II, 85 (*Chloria*).

JOHNSON, Ent. News, XI, 609, oc. in N. A., about Philadelphia; adults on decayed berries and grapes.

"Bouché found the larvæ in horse-dung, where they live in numbers through the fall and winter"—Schiner, loc. cit.

MIK, Wien. Ent. Zeit., xv, 241, note on habits.

ULIDIA.

MEIGEN, Syst. Besch., v, 385, 1826.

SCHINER, Fauna Austr., II, 86, 1864.

LOEW, Mon. N. A. Dipt., III, 63, 1873.

fulvifrons BIGOT, in Sagra's Cuba, 826.—Cuba.

rubida LOEW, Zeitsch. f. Ges. Naturwiss., 1876, 377.—Cal.

ACROSTICTA.

LOEW, Berl. Ent. Zeitsch., 1867, 293; Mon. N. A. Dipt., III, 151, 1873.

dichroa LOEW, Berl. Ent. Zeitsch., 1874, 384.—San Francisco.

fulvipes COQUILLETT, Jour. N. Y. Ent. Soc., VIII, 24.—Los Angeles Co., Cal.

scrobiculata Berl. Ent. Zeitsch., 1867, 293, pl. II, f. 5; Mon. N. A. Dipt., III, 151, ref.—Brazil.

GIGLIO-TOS, Ditt. del Mess., IV, 42, oc. in Tuxpango, Mex.

EUXESTA.

LOEW, Berl. Ent. Zeitsch., XI, 1867, 297; Mon. N. A. Dipt., III, 153, 1873.

VAN DER WULP, Biologia, Dipt., II, 396, 1899, table of Mexican species.

abdominalis LOEW, Berl. Ent. Zeitsch., XI, 307, pl. II, f. 15; Mon. N. A. Dipt., III, 164, pl. IX, f. 15.—Cuba.

alternans LOEW, Berl. Ent. Zeitsch., XI, 308, pl. II, f. 16; Mon. N. A. Dipt., III, 165, pl. IX, f. 16.—Probably Brazil or Cuba.

GIGLIO-TOS, Ditt. del Mess., IV, 46, oc. in Tuxpango, Mex.

VAN DER WULP, Biologia, Dipt., II, 399, pl. XI, f. 12.—Mexico, several places.

annonæ FABRICIUS, Ent. Syst., IV, 358 (*Musca*); Syst. Antl., 320 (*Tephritis*).—W. I.

WIEDEMANN, AUSS. ZW., II, 463 (*Ortalis*).—W. I.

MACQUART, Hist. Nat. Dipt., II, 456 (*Urophora quadrivittata*).—Cuba. [Lw.]

- SCHINER, Novara, 283 (*Amethysa*).—S. A.
 LOEW, Berl. Ent. Zeitsch., XI, 305; Mon., III, 162, pl. IX, f. 13.—Cuba.
 St. Vincent, W. I.—Williston; Porto Rico—Roeder; Fla. and Jamaica, Johnson.
- apicalis** WILLISTON, Trans. Ent. Soc. Lond., 1896, 375, pl. XII, f. 128.—St. Vincent, W. I.
 COQUILLETT, Proc. U. S. N. M., XXII, 258, oc. in Porto Rico.
- basalis** WALKER, Dipt. Saund., 373 (*Ortalis*).—U. S.
 COQUILLETT, Jour. N. Y. Ent. Soc., VIII, 24, gen. ref. and oc. in Fla.
- binotata** LOEW, Berl. Ent. Zeitsch., XI, 304; Mon. N. A. Dipt., III, 160, pl. IX, f. 12.—Cuba.
- conserta** VAN DER WULP, Biologia, Dipt., II, 399, pl. XI, f. 14.—Vera Cruz, Mex.
costalis FABRICIUS, Ent. Syst., IV, 360 (*Musca*); Syst. Antl., 275 and 278 (*Dacus aculeatus* and *costalis*).—W. I. [Wd.]
 WIEDEMANN, AUSS. ZW., II, 464 (*Ortalis*).—W. I.
 LOEW, Berl. Ent. Zeitsch., XI, 301; Mon. N. A. Dipt., III, 158, pl. IX, f. 10.—W. I.
 Porto Rico—Roeder; Jamaica—Johnson.
- eluta** LOEW, Berl. Ent. Zeitsch., XI, 312; Mon. N. A. Dipt., III, 168, pl. IX, f. 18.—Cuba.
- fascipennis** VAN DER WULP, Biologia, Dipt., II, 398, pl. XI, f. 10.—Guerrero, Vera Cruz, and Tabasco, Mex.
- laticeps** VAN DER WULP, Biologia, Dipt., II, 397, pl. XI, f. 7.—Tabasco, Mex.
- latifasciata** VAN DER WULP, Biologia, Dipt., II, 397, pl. XI, f. 9.—Morelos, Mex.
- major** VAN DER WULP, Biologia, Dipt., II, 398, pl. XI, f. 11.—Orizaba, Mex.
- nigricans** VAN DER WULP, Biologia, Dipt., II, 397, pl. XI, f. 8.—Guerrero, Mex.
- nitidiventris** LOEW, Mon. N. A. Dipt., III, 157.—Texas.
 BRUES, Psyche, 1902, 353, found a hundred or more larvæ under bark of dead pecan tree in Texas; larva desc. and figured.
 Charlotte Harbor, Fla.—Johnson.
- notata** WIEDEMANN, AUSS. ZW., II, 462 (*Ortalis*).—Savannah and New York.
 LOEW, Berl. Ent. Zeitsch., XI, 300; Mon. N. A. Dipt., III, 156, pl. IX, f. 9.—D. C., N. Y., Ill., Conn.; bred from pulp of an "Osage orange."
 RILEY and HOWARD, Insect Life, VI, 270, note the following rearings:
 From onions (J. B. Smith in N. J.).
 pulp of Osage orange (O. S.).
 cotton bolls in Alabama.
 sumac fruits in Virginia.
 bolls of *Solanum carolinense* D. C.
 apple previously infested with Codling Moth in California.
 HOWARD, Proc. Wash. Acad. Sci., II, 585, reared from human excrement.
 Inverness, Fla.—Johnson; N. J.—Smith Cat.
- platystoma** THOMSON, Eugen. Resa, 572 (*Ortalis*).—Panama.
 VAN DER WULP, Biologia, Dipt., II, 397, notes.
- pusio** LOEW, Berl. Ent. Zeitsch., XI, 299; Mon. N. A. Dipt., III, 155, pl. IX, f. 8.—Cuba.
- quaternaria** LOEW, Berl. Ent. Zeitsch., XI, 302; Mon. N. A. Dipt., III, 159, pl. IX, f. 11.—Cuba. Lake Worth, Fla.—Johnson.
- scoriacea** LOEW, Zeitsch. f. Ges. Naturwiss., 1876, 336.—Texas.
 N. J.—Smith Cat.; Charlotte Harbor, Fla.—Johnson.
- spoliata** LOEW, Berl. Ent. Zeitsch., XI, 298, pl. II, f. 7; Mon. N. A. Dipt., III, 154, pl. IX, f. 7.—Cuba.
 COQUILLETT, Proc. U. S. N. M., XXII, 258, oc. in Porto Rico.

VAN DER WULP, *Biologia*, Dipt., II, 397, note under *laticeps*.

Porto Rico—Roeder.

spoliata WILLISTON, see *willistonii*.

stigmatias LOEW, Berl. Ent. Zeitsch., XI, 310, pl. II, f. 18; Mon. N. A. Dipt., III, 166, pl. IX, f. 17.—Cuba, Brazil.

VAN DER WULP, *Biologia*, Dipt., II, 399 pl. XI, f. 13.—Orizaba, Guerrero, Vera Cruz, and Tabasco, Mex.

Porto Rico—Roeder and Coquillett; St. Vincent, W. I.—Williston.

thomæ LOEW, Berl. Ent. Zeitsch., XI, 306, pl. II, f. 14; Mon. N. A. Dipt., III, 163, pl. VIII, f. 14.—St. Thomas, W. I.

COQUILLETT, Proc. U. S. N. M., XXII, 257, oc. in Porto Rico.

willistonii COQUILLETT, Jour. N. Y. Ent. Soc., VIII, 24, change of name.

WILLISTON, Dipt. of Death Valley Exped., 257 (*spoliata*, preoc.).—Death Valley and Panamint Mts., Cal.

ZACOMPSIA.

COQUILLETT, Ent. News, XII, 15, 1901.

fulva COQUILLETT, loc. cit.—Texas, and Opelousas, La.

CHÆTOPSIS.

LOEW, Berl. Ent. Zeitsch., XI, 305, 1867; Mon. N. A. Dipt., III, 169, 1873.

ænea WIEDEMANN, Auss. Zw., II, 462, 1830 (*Ortalis*).—New Orleans.

SAY, Jour. Acad. Sci. Phil., VI, 184, 1830; Compl. Works, II, 368 (*Ortalis trifasciata*).—U. S.

MACQUART, Dipt. Exot., Suppl. v, 125, pl. VII, f. 8 (*Urophora fulvifrons*).—Baltimore, Md.

WALKER, List, IV, 992 (*Ortalis massyla*).—N. A.

LOEW, Berl. Ent. Zeitsch., XI, 315; Mon. N. A. Dipt., III, 170, pl. IX, f. 19.

—U. S., rather common; Cuba, Canada and the Bermudas—O. S.

RILEY and HOWARD, Insect Life, II, 281, record the rearing by Gillette from larvæ boring in the pith of cornstalk.

HOWARD, Insect Life, VII, 352, mentions damage by larvæ to sugar-cane, corn, and oats; La, Ohio, Fla., Md.

White Mts., N. H.—Slosson; Province of Quebec—Fyles.

apicalis JOHNSON, Ent. News, XI, 326, fig.—N. J., Fla.

debilis LOEW, Berl. Ent. Zeitsch., XI, 318; Mon. N. A. Dipt., III, 172, pl. IX, f. 20.—Cuba.

trifasciata SAY, Desc. of new spp. of N. A. Ins. found in La. by Jos. Barabino, 1831 (*Trypeta*); quoted by Scudder, Psyche, 1899, 306, with notes by Osten Sacken. *Debilis* may be the same—O. S.

Note.—This description was omitted from the Complete Works of Say. As will be seen above, Say had already described a *trifasciata* of the same genus a year earlier.

SEOPTERA.

KIRBY, Introd. to Ent., II, 305, 1817, Letter XXIII (*Seioptera*).

DESVOIDY, Myodaires, 727, 1830 (*Myodina*).

SCHINER, Fauna Austr., II, 84, 1864 (*Myodina*).

LOEW, Berl. Ent. Zeitsch., 1867, 295 (amended to *Seoptera* and defined for the first time); Mon. N. A. Dipt., III, 151, 1873.

colon LOEW, Berl. Ent. Zeitsch., XI, 296, pl. II, f. 6; Mon. N. A. Dipt., III, 152, pl. IX, f. 6.—Ill. N. J.—Smith Cat.

vibrans LINNÉ, Syst. Naturæ, 11th ed., p. 599 (*Musca*); Fauna Suec., 2d ed., p. 459 (id.).—Europe.

FABRICIUS, Species Ins., II, 450 (*Musca*); Syst. Antl., 324 (*Tephritis*).

MEIGEN, Syst. Besch., v, 284 (*Ortalis*).

DESVOIDY, Myodaires, 728 (*Myodina urticae*).

SCHINER, Fauna Austr., II, 85 (*Myodina*).

LOEW, Mon. N. A. Dipt., II, 153, notes; Appendix, note by O. S. on oc. in N. A.; Province of Quebec—Fyles.

N. J.—Smith Cat.; Montreal—Chagnon; White Mts., N. H.—Slosson.

Widespread in U. S.; Idaho—J. M. A.

Note.—Coquillett, Jour. N. Y. Ent. Soc., VIII, 24, would make *Ortalis diopsides* Walker a synonym of this; from the description this would seem very doubtful.

STENOMYIA.

LOEW, Berl. Ent. Zeitsch., XI, 320, 1867; Mon. N. A. Dipt., III, 173, 1873.

tenuis LOEW, locis citatis.—Ga., Texas. N. J.—Smith Cat.

EUMETOPIA.

MACQUART, Dipt. Exot., Suppl. II, 87, 1847.

LOEW, Berl. Ent. Zeitsch., XI, 322, 1867; Mon. N. A. Dipt., III, 175, 1873.

rufipes MACQUART, loc. cit., pl. VI, f. 2.—Philadelphia.

LOEW, Berl. Ent. Zeitsch., XI, 322; Mon. N. A. Dipt., III, 175, pl. IX, f. 22.

—U. S., not rare. D. C., Texas—O. S. N. J.—Smith Cat.

varipes LOEW, Cent., VI, 87; Berl. Ent. Zeitsch., XI, 323; Mon. N. A. Dipt., III, 176, pl. IX, f. 23.—Cuba.

CONICEPS.

LOEW, Mon. N. A. Dipt., III, 177, 1873; see also Besch. Europ. Dipt., III, 292.

niger LOEW, Mon. N. A. Dipt., III, 178.—Texas.

STENERETMA.

LOEW, Mon. N. A. Dipt., III, 186, 1873.

latiuscula LOEW, loc. cit.—Texas.

EPIPLATEA.

LOEW, Berl. Ent. Zeitsch., XI, 324, 1867; Mon. N. A. Dipt., III, 194, 1873.

amabilis WILLISTON, Trans. Ent. Soc. Lond., 1896, 376.—St. Vincent, W. I.

erosa LOEW, Berl. Ent. Zeitsch., XI, 325; Mon. N. A. Dipt., III, 194, pl. IX, f. 24.—Cuba.

gracilis COQUILLETT, Jour. N. Y. Ent. Soc., VIII, 25.—Allende, Mex.

scutellaris COQUILLETT, Jour. N. Y. Ent. Soc., VIII, 25.—Dunsmuir, Cal.

CÆLOMETOPIA.

MACQUART, Dipt. Exot., Suppl. II, 91, 1847 (*Coilometopia*).

LOEW, Mon. N. A. Dipt., III, 188, 1873, amended, with desc.

bimaculata LOEW, Mon. N. A. Dipt., III, 189.—Cuba.

NEOIDIOTYPA.

OSTEN SACKEN, Cat., 187, 1878, change of name.

LOEW, Mon. N. A. Dipt., III, 183, 1873 (*Idiotypa*, preoc.).

appendiculata LOEW, loc. cit. (*Idiotypa*).—Cuba.

RICHARDIA.

DESVOIDY, Myodaires, 728, 1830.

LOEW, Mon. N. A. Dipt., III, 178, 1873.

VAN DER WULP, Biologia, Dipt., II, 385, 1899, table of Mexican species.

concinna VAN DER WULP, Biologia, Dipt., II, 387, pl. x, f. 18.—Santiago Iscuintla and Guerrero, Mex.

elegans VAN DER WULP, Biologia, Dipt., II, 386, pl. x, f. 17.—Tabasco, Mex.

podagrica FABRICIUS, Syst. Antl., 272 (*Dacus*).—S. A.

WIEDEMANN, Auss. Zw., II, 445, pl. 10a, f. 5 (*Cordylura*).—Brazil. The ref. to fig. 9 in the text is a mistake—Wulp.

DESVOIDY, Myodaires, 728 (*saltatoria*).—Cayenne.

MACQUART, Dipt. Exot., II, 3, 205, pl. XXVII, f. 8.—Guiana.

RONDANI, Studi Ent., I, 82.—Brazil.

GERSTÄCKER, Stett. Ent. Zeit., XXI, 163.

SCHINER, Novara, 259.—S. A.

VAN DER WULP, Biologia, Dipt., II, 385, oc. in N. A.—Guerrero and Vera Cruz, Mex.

viridiventris VAN DER WULP, Biologia, Dipt., II, 386.—Tabasco, Mex.

STENOMACRA.

LOEW, Mon. N. A. Dipt., III, 180, 1873.

guerini BIGOT, in Sagra's Cuba, 822, pl. xx, f. 9 (*Scpsis*).—Cuba.

LOEW, Mon. N. A. Dipt., III, 180, pl. ix, f. 25.—Cuba.

VAN DER WULP, Biologia, Dipt., II, 389, pl. x, f. 21.—Vera Cruz and Tabasco, Mex. Porto Rico—Roeder.

PANERYMA.

VAN DER WULP, Biologia, Dipt., II, 387, 1899.

elongata VAN DER WULP, loc. cit., pl. x, f. 19.—Tabasco, Mex.

CYRTOMETOPA.

LOEW, Mon. N. A. Dipt., III, 179, 1873.

MACQUART, Dipt. Exot., II, 3, 372, 215, 1843 (*Odontomera*, preoc.).

VAN DER WULP, Biologia, Dipt., II, 388, notes.

cinctella VAN DER WULP, Biologia, Dipt., II, 389, pl. x, f. 20.—Cordova and Tabasco, Mex.

ferruginea MACQUART, Dipt. Exot., II, 3, 215, pl. XXIX, f. 6 (*Odontomera*).—No locality.

LOEW, Mon. N. A. Dipt., III, 179, recognized from America.

GIGLIO-TOS, Ditt. del Mess., IV, 61, oc. in Orizaba, Mex., and partial desc.

VAN DER WULP, Biologia, Dipt., II, 389.—Morelos and Vera Cruz, Mex.

? **setosa** BIGOT, Annales, 1886, 386 (*Odontomera*).—Wash. Query by Bigot.

RHOPALOMERIDÆ.

RHINOTORA.

SCHINER, Novara, 233, 1868.

diversa GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 158; Ditt. del Mess., IV, 43, f. 25, 26.—Tuxpango, Mex.

RHOPALOMERA.

WIEDEMANN, Auss. Zw., II, 570, 1830.

LOEW, Mon. N. A. Dipt., III, 14, 15, 1873, would place in Sapromyzidæ.

VAN DER WULP, Biologia, Dipt., II, 379, 1899, puts in Ortalidæ.

WILLISTON, Psyche, 1895, 183, puts in a separate family with *Rhinotora*.

BECKER, Berl. Ent. Zeitsch., XL, 1895, 260, notes.

pleuropunctata WIEDEMANN, Auss. Zw., II, 572.—S. A.

GIGLIO-TOS, Ditt. del Mess., IV, 43, oc. in Mex.—at Playa Vicente.

xanthops WILLISTON, Psyche, 1895, 213.—Yucatan.

WILLISTONIELLA.

MIK, Wien. Ent. Zeit., XIV, 136, change of name.

WILLISTON, Psyche, 1895, 184 (*Rhopalomyia*, preoc.).

The genus is reported from North America by Williston, Ent. News, VII, 185. The described species are South American.

TRYPETIDÆ.

LOEW, Mon. N. A. Dipt., III, 327, 1873, table of genera.

COQUILLETT, Jour. N. Y. Ent. Soc., VII, 267, 1899, table of genera.

Note.—The order followed is essentially that of the table in Williston's Manual, although Coquillett has pointed out some seeming defects in the relation of genera therein. The genera of this family are closely interwoven, and mostly based on plastic characters; hence a slight difference in the emphasis placed on one set of characters has the effect of throwing a large number of species into other genera than they previously occupied. This change of emphasis Mr. Coquillett seems to have adopted, as compared with Loew, who established most of the genera; but as he has not published anything to justify his new generic references in most cases, I have been slow to accept them. The synonymy of species by Mr. Coquillett in Jour. N. Y. Ent. Soc., VII, 259-268, seems to me to do a great injustice to Mr. Doane, whose species were very carefully and accurately worked out. From an examination of Doane's material, I am satisfied that Coquillett was wrong in all, or nearly all, of the assertions he made regarding the synonymy of Doane's species; this was shown in a rejoinder published by Doane, op. cit., VIII, 47.

TOXOTRYPANA.

GERSTÆCKER, Stett. Ent. Zeit., XXI, 191, 1860.

BIGOT, Bull. Soc. Ent. France, 1884, XXIX (*Mikimyia*).

ROEDER, Wien. Ent. Zeit., X, 31, 1891, refers to Ortalidæ.

SNOW, Kans. Univ. Quart., IV, 117-119, figs., 1895, full discussion.

curvicauda GERSTÆCKER, Stett. Ent. Zeit., XXI, 194, pl. II, f. 9.—St. John, Antigua, in the West Indies.

BIGOT, Bull. Soc. Ent. France, 1884, XXIX (*Mikimyia furcifera*).—Brazil. [V. d. W.]

ROEDER, Wien. Ent. Zeit., X, 31.—Peru.

SNOW, Kans. Univ. Quart., IV, 117, fig., etc.—Yucatan.

VAN DER WULP, Biologia, Dipt., II, 379, oc. in N. Yucatan, Mex.

CERATITIS.

MACLEAY, Zool. Jour., XVII, 1829.

SCHINER, Fauna Austr., II, 173, 1864.

ROEDER, Berl. Ent. Zeitsch., XXIX, 132, 1885.

[*capitata* WIEDEMANN, Analecta Ent., 54 (*Trypeta*); Auss. Zw., II, 496 (id.).—East Indies.

MACLEAY, Zool. Jour., IV, 1829, 475 (*Ceratitis citriperda*).—Madeira; destructive to oranges.

WESTWOOD, Gardener's Chronicle, 1848, 604, fig.—Azores.

PENZIG, Annali di Agricoltura, 1887, important article; abstract in Ins. Life, III, 80.

HENSLOW, Gardiner's Chronicle, 1890, May 24, 655, biology, with figs.—Malta, seriously injuring oranges.

RILEY and HOWARD, Insect Life, III, 5, life history, figures, etc.—Bermuda, where the larvæ injure peaches by mining in them.]

Note.—Although this insect is at present not known within the faunal limits of this catalogue, its economic importance and proximity justify its insertion.

HEXACHÆTA.

LOEW, Mon. N. A. Dipt., III, 219, 1873.

VAN DER WULP, Biologia, Dipt., II, 402, 1899, table of Mexican species.

amabilis LOEW, Mon. N. A. Dipt., III, 219.—Mexico, in v. Roeder's collection.

ROEDER, Wien. Ent. Zeit., XIII, 97, fig.—Peru; says the type locality was Peru, not Mex.

TOWNSEND, Zoe, IV, 15, notes and desc. of female.—Mex.

GIGLIO-TOS, Ditt. del Mess., IV, 59, oc. in Orizaba, Mex.

VAN DER WULP, Biologia, Dipt., II, 403, pl. XI, f. 16.—Yucatan, Mex.

?*dinia* WALKER, List, IV, 1040 (*Trypeta*).—Jamaica. Gen. ref. with a doubt by Loew—may be same as *eximia*.

eximia WIEDEMANN, Auss. Zw., II, 477.—Surinam.

MACQUART, Dipt. Exot., Suppl. IV, 291, pl. XXVII, f. 3 (*Tephritis fasciventris*).—Brazil. [Lw.]

LOEW, Mon. N. A. Dipt., III, 216.—Mex.

VAN DER WULP, Biologia, Dipt., II, 402, pl. XI, f. 15, oc. in Vera Cruz.

pulchella VAN DER WULP, Biologia, Dipt., II, 403, pl. XI, f. 18.—Tabasco, Mex.

rupta VAN DER WULP, Biologia, Dipt., II, 404, pl. XI, f. 19.—Tabasco, Mex.

socialis WIEDEMANN, Auss. Zw., II, 491 (*Trypeta*).—Brazil.

MACQUART, Dipt. Exot., Suppl. II, 93, pl. VI, f. 6 (*Tephritis major*).—Brazil. [Lw.]

LOEW, Mon. N. A. Dipt., III, 219, obs. 2, note.

GIGLIO-TOS, Ditt. del Mess., IV, 59, oc. in Tuxpango, Mex.

VAN DER WULP, Biologia, Dipt., II, 403, pl. XI, f. 17.—Vera Cruz, Mex.

splendida GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 158; Ditt del Mess., IV, 58, f. 20 (both *Blepharocura*).—Mex.

VAN DER WULP, Biologia, Dipt., II, 404, pl. XI, f. 20.—Costa Rica.

ANASTREPHA.

SCHINER, Novara, 263, 1868.

LOEW, Mon. N. A. Dipt., III, 227, 1873 (*Acrotoxa*).

OSTEN SACKEN, Cat., 260, 1878, makes the *Leptoxys* of Macquart, Dipt. Exot., II, 452, 1835, the same as this; it was amended by Macquart, Dipt. Exot., Suppl., II, 2, 216, 1841, to *Leptoxys*, which is apparently preoccupied. This raises a peculiar question of nomenclature. Coquillett, Jour. N. Y. Ent. Soc., VII, 259, 1899, asserts that *Leptoxys* is not the same genus. I deem it safest to make no change under these con-

- ditions. The same question, with the synonymy of *Acrotora*, is discussed by Van der Wulp, *Biologia*, Dipt., II, 404, 1899.
- acidusa** WALKER, List, IV, 1014 (*Trypeta*).—Jamaica.
 LOEW, Mon. N. A. Dipt., III, 335, note—not seen.
 Fla.—Johnson.
- fraterculus** WIEDEMANN, AUSS. ZW., II, 524 (*Dacus*).—Brazil.
 LOEW, Mon. N. A. Dipt., I, 70, pl. II, f. 6 (*Trypeta unicolor*); III, 222, pl. X, f. 6, syn. (*Acrotora*).—Brazil, Peru, Colombia, Cuba.
 VAN DER WULP, *Biologia*, Dipt., II, 404, pl. XI, f. 21.—Yucatan, Mex. Porto Rico—Roeder (*Acrotora*).
- ludens** LOEW, Mon. N. A. Dipt., III, 223, pl. XI, f. 19 (*Acrotora*).—Mex.
 RILEY and HOWARD, Ins. Life, I, 45, life-history with figures; the larvæ live in oranges in Mexico, and injure the crop considerably.
 HERRERA, Bol. Comis. Parisit. Agric. Mex., I, No. 1, 1900, biology, figs., etc.: larvæ in oranges, same as preceding.
 JOHNSON, Proc. Ent. Soc. Wash., IV, 56, both sexes; bred at Champaign, Ill., from Mexican oranges, coming from near City of Mexico.
- mucida** GIGLIO-TOS, see *Polionota*.
- obliqua** MACQUART, Hist. Nat. Dipt., II, 464 (*Tephritis*); Dipt. Exot., II, 3, 225, pl. XXX, f. 11 (id.).—Cuba.
 LOEW, Mon. N. A. Dipt., III, 337, note; not seen.
 OSTEN SACKEN, Cat., 195, note on type.
- ocresia** WALKER, List, IV, 1016 (*Trypeta*).—Jamaica.
 LOEW, Mon. N. A. Dipt., III, 337, note; not seen.
 OSTEN SACKEN, Cat., 195, note on type.
- suspensa** LOEW, Mon. N. A. Dipt., I, 69, pl. II, f. 5 (*Trypeta*); III, 219, pl. X, f. 5 (*Acrotora*).—Cuba.
 SCHINER, Novara, 263, oc. in S. A.
 GIGLIO-TOS, Ditt. del Mess., IV, 59, oc. in Tuxpango, Mex. (*Acrotora*).
- tricincta** LOEW, Mon. N. A. Dipt., III, 225 (*Acrotora*).—Hayti.
- tripuncta** VAN DER WULP, *Biologia*, Dipt., II, 405, pl. XI, f. 22.—Guerrero, Mex.

POLIONOTA.

- VAN DER WULP, *Biologia*, Dipt., II, 409, 1899.
- mucida** GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 158, 1893; Ditt. del Mess., IV, 58, f. 21 (both *Acrotora*).—Mex.
 VAN DER WULP, *Biologia*, Dipt., II, 410, pl. XII, f. 1, type of this genus.—Guerrero, Mex.
- radians** VAN DER WULP, *Biologia*, Dipt., II, 410, pl. XII, f. 2.—Sierra de las Aguas Escondidas, Mex., 9,500 ft.

STRAUSSIA.

- DESVOIDY, Myodaires, 718, 1830 (*Strausia*).
 LOEW, Mon. N. A. Dipt., III, 243, 1873, def. and change of name.
- longipennis** WIEDEMANN, AUSS. ZW., II, 483 (*Trypeta*), 1830.—N. A.
 DESVOIDY, Myodaires, 718 and 719 (*incermis* and *armata*).—Philadelphia.
 MACQUART, Dipt. Exot., II, 3, 226, pl. XXXI, f. 3 (*Tephritis trimaculata*).—N. A.
 WALKER, List, IV, 1010, 1011 (*Trypeta cornigera* and *cornifera*).—N. A.?; no locality.
- LOEW, Mon. N. A. Dipt., I, 65, pl. II, f. 2, 3; III, 238, pl. X, f. 2, 3; several varieties named and distinguished.—Conn. to Nebr.

OSTEN SACKEN, West. Dipt., 345, oc. in Col.

LINTNER, 3d N. Y. Rept., 137, notes on oviposition, etc.

SNOW, Kans. Univ. Quart., II, 159.—Kansas, Conn., Cal.; extended notes on varieties.

DOANE, Jour. N. Y. Ent. Soc., VII, 178, notes.—S. D., Col., Ohio.

N. J.—Smith Cat.; Montreal—Chagnon; Beulah, N. M.—Skinner.

MOLYNOCÆLIA.

GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 158, 1893; Ditt. del Mess., IV, 59, 1895.

lutea GIGLIO-TOS, locis citatis, f. 23.—Tuxpango, Mex.

STENOPA.

LOEW, Mon. N. A. Dipt., III, 234, 1873.

vulnerata LOEW, Mon. N. A. Dipt., III, 232.—Mass.

ACIDIA.

DESVOIDY, Myodaires, 720, 1830.

SCHINER, Fauna Austr., II, 114, 1864.

LOEW, Europ. Bohrfiegen, 34, 1862; Mon. N. A. Dipt., III, 235, note, 1873.

fratria LOEW, Mon. N. A. Dipt., I, 67, pl. II, f. 4 (*Trypeta*); III, 245, pl. x, f. 4.—U. S. (O. S. gives Atlantic States).

THOMSON, Eugenes Resa, 578 (*Trypeta liogaster*).—Cal.

COQUILLETT, Ins. Life, VII, 383, life history, fig., etc.; larvæ mine in leaves of parsnip in Mo.

DOANE, Jour. N. Y. Ent. Soc., VII, 178, notes and syn.; larva mine leaves of *Heracleum*; may be the same as the European *heraclei* L.—Wash.

N. J.—Smith Cat.

fausta OSTEN SACKEN, West. Dipt., 346.—Alpine region of Mt. Washington, N. H.

COQUILLETT, Jour. N. Y. Ent. Soc., VII, 260, note.

Montreal—Chagnon.

suavis LOEW, Mon. N. A. Dipt., I, 75, pl. II, f. 10 (*Trypeta*); III, 235, pl. x, f. 10.—Middle States.

COQUILLETT, Jour. N. Y. Ent. Soc., VII, 260, note.

BAEB, Ent. News, XIII, 242, 1 pl., life hist.; larvæ live in outer covering of fruit of black walnut.—Amherst, Mass. (*Rhagoletis*).

tortilis COQUILLETT, Canad. Ent., XXVI, 71.—Wash.

uncinata COQUILLETT, Jour. N. Y. Ent. Soc., VII, 260.—Ft. Wrangle, Alaska.

EPOCHRA.

LOEW, Mon. N. A. Dipt., III, 238, 1873.

canadensis LOEW, Mon. N. A. Dipt., III, 235.—Canada and Maine.

GILLETTE, Bull. 19, Colo. Expt. Sta., 1892, larva infests gooseberries in Col.

HARVEY, Rept. Maine Expt. Sta., 1895, 111-124, plates and figs.; biology; Bull. Maine Expt. Sta., No. 35, 1897, habits, etc.—Maine, infesting gooseberries and currants.

BAKER, Ent. News, VI, 174, 1895, infesting gooseberries at Ft. Collins, Col.

FLETCHER, Trans. R. Soc. Canada, 2d ser., V, 223, reports serious damage to currants in Vancouver Id.

DOANE, Jour. N. Y. Ent. Soc., VII, 178, attacks both currants and gooseberries in Washington.

PIPER and DOANE, Bull. 36, Wash. Ex. Sta., biology, with figs.; same habits.—Wash.

rubida COQUILLETT, Jour. N. Y. Ent. Soc., VII, 260.—Colo.

SPILOGRAPHA.

LOEW, Europ. Bohrfiegen, 39, 1862 (*Spilograppha* and *Zonosema*; united in Mon., III, 245); Mon. N. A. Dipt., III, 247 (*Edicarena*).

SCHINER, Fauna Austr., II, 118, 1864, inclusive of *Rhagoletis*.

VAN DER WULP, Biologia, Dipt., II, 406, syn. of *Edicarena*; table of Mexican species, 1899.

basium OSTEN SACKEN, West. Dipt., 348 (*Zonosema*).—Mass.

concolor VAN DER WULP, Biologia, Dipt., II, 408, pl. XI, f. 28.—Mexico City.

diffusa SNOW, Kans. Univ. Quart., II, 161, pl. VII, f. 9 (*Edicarena*).—Kans., Wash.

DOANE, Jour. N. Y. Ent. Soc., VII, 179, note.—Wash., S. D., Col.

? **dubia** JOHNSON, Trans. Amer. Ent. Soc., XXIX, 102, fig.—Beulah, N. M. (? *Zonosema*).

electa SAY, Jour. Acad. Sci. Phil., VI, 185; Compl. Works, II, 369 (*Trypeta*).—Ind.

LOEW, Mon. N. A. Dipt., I, 71, pl. II, f. 7 (*Trypeta*); III, 244, pl. X, f. 7.—Fla.

WILLISTON, Kans. Univ. Quart., XIII, 307, bred in Mo. from berries of *Solanum carolinense*.

SNOW, Kans. Univ. Quart., II, 161, notes.—Kans., Conn., Ga.

flavonotata MACQUART, Dipt. Exot., Suppl. v, 125, pl. VII, f. 9 (*Tephritis*).—Baltimore.

LOEW, Mon. N. A. Dipt., III, 245.—Yukon R., Alaska.

COQUILLETT, Jour. N. Y. Ent. Soc., VII, 261, note.

N. J.—Smith Cat; Beulah, N. M.—Skinner.

fractura COQUILLETT, Proc. U. S. N. M., XXV, 125.—White Mts. of New Mexico; Col.

latifrons VAN DER WULP, Biologia, Dipt., II, 407, pl. XI, f. 26.—Durango, Mex.

maculosa COQUILLETT, Jour. N. Y. Ent. Soc., VII, 261.—Colo.

obfuscata VAN DER WULP, Biologia, Dipt., II, 406, pl. XI, f. 25.—Guerrero, Mex.

persuasa OSTEN SACKEN, West. Dipt., 344 (*Edicarena*).—Col.

rufata VAN DER WULP, Biologia, Dipt., II, 407, pl. XI, f. 27.—Guerrero, Mex.

setosa DOANE, Jour. N. Y. Ent. Soc., VII, 178, pl. III, f. 1.—Wash., Ida., Mich., S. D., Minn.

striata VAN DER WULP, Biologia, II, 406, pl. XI, f. 24.—Guerrero, Mex.

tetanops LOEW, Mon. N. A. Dipt., III, 245, pl. XI, f. 15 (*Edicarena*).—Mex.

vittigera COQUILLETT, Jour. N. Y. Ent. Soc., VII, 261 (*Zonosema*).—Eagle Pass, Tex.; Las Cruces and Mesilla, N. M.

TRYPETA.

MEIGEN, Illig. Mag., II, 277, 1803; Syst. Besch., v, 210, 1826.

LOEW, Eur. Bohrfiegen, 51, 1862, restricted; Mon. N. A. Dipt., III, 253, 1873, notes.

SCHINER, Fauna Austr., II, 125, 1864.

baccharis COQUILLETT, Canad. Ent., XXVI, 73.—Cal.; larvæ in galls on *Baccharis*.

cerasi Fauna Suec., 2d ed., p. 461, 1761 (*Musca*).—Europe.

Note.—Hagen, *Canad. Ent.*, xv, 159, records finding in cherries at Cambridge Mass., the larvæ of this European species, which is referred by Schiner to *Rhagoletis* (*Fauna Austr.*, II, 121). As nothing further has been brought to light, it is very likely that the species found by Hagen was the native *Rhagoletis cingulata*, q. v.

flaveola COQUILLETT, *Dipt. of Commander Ids.*, 345.—Bering Id.

florescentiæ LINNÉ, see *ruficauda*.

fratria LOEW, see *Acidia*.

ludens LOEW, see *Anastrepha*.

narytia WALKER, see *Tephronota ruficeps*.

notata COQUILLETT, *Jour. N. Y. Ent. Soc.*, VII, 262.—Albuquerque, N. M.

COCKERELL, *Jour. N. Y. Ent. Soc.*, VIII, 198, bred from spherical galls on "*Bigelovia graveolens* (sens. lat.)" at Santa Fe, N. M.

occidentalis SNOW, *Kans. Univ. Quart.*, II, 163, pl. VII, f. 11.—Cal., Col.

DOANE, *Jour. N. Y. Ent. Soc.*, VII, 179, pt. desc.—Wash., Idaho, Col., S. D. Beulah, N. M.—Skinner.

palposa LOEW, *Mon. N. A. Dipt.*, I, 74; III, 253, pl. x, f. 9.—N. Wisconsin R.

OSTEN SACKEN, *West. Dipt.*, 345, note.

SNOW, *Kans. Univ. Quart.*, II, 162, oc. in *Kans.* and note on wing.

N. J.—Smith Cat.; Minn., Ia.—Doane.

ruficauda FABRICIUS, *Ent. Syst.*, IV, 353 (*Musca*); *Syst. Antl.*, 276 (*Dacus*).—Europe.

FALLÉN, *K. Vetensk. Akad. Handl.*, 1814, 167 (*Tephritis ? punctata*); Ortalides, 7 (*Tephritis florescentiæ* LINNÉ).

MEIGEN, *Syst. Besch.*, v, 321 (*florescentiæ*).

LOEW, *Europ. Bohrfliegen*, 59 (id.); *Mon. N. A. Dipt.*, III, 254 (id.), oc. in N. A.—Canada.

SCHINER, *Fauna Austr.*, II, 132; shows in a footnote that this cannot be the *florescentiæ* of Linné.

Note.—The larvæ have been bred from thistle heads in Europe.

? *scutellata* WIEDEMANN, *Auss. Zw.*, II, 494.—Mex.

"A Trypetid of doubtful position"—Loew, in *O. S. Cat.*

stelligera COQUILLETT, *Canad. Ent.*, XXVI, 74.—Cal.

straminea DOANE, *Jour. N. Y. Ent. Soc.*, VII, 179, pl. III, f. 2.—Wash.

undosa COQUILLETT, *Jour. N. Y. Ent. Soc.*, VII, 262.—Col.

varipennis COQUILLETT, *Jour. N. Y. Ent. Soc.*, x, 180.—Coconino Co., Ariz.

PERONYMA.

LOEW, *Mon. N. A. Dipt.*, III, 250, 1873.

sarcinata LOEW, *Cent.*, II, 73; *Mon. N. A. Dipt.*, III, 247, pl. XI, f. 16.—S. Car.

? MACQUART, *Dipt. Exot.*, II, 3, 226, pl. XXX, f. 8 (*Tephritis quadrisfasciata*).—Ga. [Loew, with a doubt.]

PLAGIOTOMA.

LOEW, *Mon. N. A. Dipt.*, III, 252, 1873.

discolor LOEW, *Mon. N. A. Dipt.*, I, 64 (*Trypeta*); III, 250, pl. x, f. 1.—Cuba.

incompleta WILLISTON, *Trans. Ent. Soc. Lond.*, 1896, 378.—St. Vincent, W. I.

obliqua SAY, *Jour. Acad. Sci. Phil.*, VI, 186; *Compl. Works*, II, 370 (*Trypeta*).—Ind.

LOEW, *Mon. N. A. Dipt.*, I, 99 (id.); III, 251, pl. XI, f. 14.—Pa., Tex.; on *Vernonia* in August.

SCHINER, *Novara*, 267, oc. in Brazil; but this is doubtless the related

form described later by Loew as *biscriata*.

VAN DER WULP, *Biologia*, Dipt., II, 405, pl. XI, f. 23.—Orizaba and Vera Cruz, Mexico. Ariz.—Williston MS. N. J.—Smith Cat.

POLYMORPHOMYIA.

SNOW, *Kans. Univ. Quart.*, II, 165, 1894.

basilica SNOW, *Kans. Univ. Quart.*, II, 165, pl. VII, f. 1.—San Domingo.

pilosula VAN DER WULP, *Biologia*, Dipt., II, 411, pl. XII, f. 4.—Vera Cruz and Tabasco, Mex.

ÆDASPIS.

LOEW, *Europ. Bohrfiegen*, 46, 1862; *Mon. N. A. Dipt.*, III, 260, 1873.

SCHINER, *Fauna Austr.*, II, 122, 124 (*Ædaspis* and *Orellia*), 1864.

anthracina DOANE, *Jour. N. Y. Ent. Soc.*, VII, 180, pl. III, f. 3.—Ida., Mich.

atra LOEW, *Cent.*, II, 74; *Mon. N. A. Dipt.*, III, 256, pl. XI, f. 17.—Mex.; N. Y.

PATTON, *Canad. Ent.*, XXIX, 247, larvæ in *solidago* heads, forming galls the same as those of *polita*.—Conn.

VAN DER WULP, *Biologia*, Dipt., II, 408, pl. XI, f. 29, oc. in N. Sonora, Mex.

N. J.—Smith Cat.

gibba LOEW, *Mon. N. A. Dipt.*, III, 260.—Texas.

minuta SNOW, *Kans. Univ. Quart.*, II, 164, pl. VI, f. 2.—Mont.

montana SNOW, *Kans. Univ. Quart.*, II, 163, pl. VI, f. 5.—Mont.

penelope OSTEN SACKEN, *West. Dipt.*, 346.—Western N. Y.

polita LOEW, *Mon. N. A. Dipt.*, I, 77; III, 257, pl. X, f. 12.—D. C., Conn., N. Y., Miss.

OSTEN SACKEN, *Trans. Amer. Ent. Soc.*, II, 301, describes gall made by the larva on *Solidago*. N. J.—Smith Cat.

setigera COQUILLET, *Jour. N. Y. Ent. Soc.*, VII, 262.—R. I., Va., Ga., Mo., Kans.

RHAGOLETIS.

LOEW, *Europ. Bohrfiegen*, 44, 1862; *Mon. N. A. Dipt.*, III, 267, 1873.

DOANE, *Ent. News*, IX, 69, 1898, table of species.

caurina DOANE, *Jour. N. Y. Ent. Soc.*, VII, 182, pl. III, f. 5.—Oregon.

cingulata LOEW, *Mon. N. A. Dipt.*, I, 76 (*Trypeta*); III, 263, pl. X, f. 11.—Long Branch, N. J.

SLINGERLAND, *Bull.* 172, Cornell Expt. Sta., Sept., 1899; larva mines in fruit of cherry. Life history, figs., etc. The identity of the species is confirmed from reared specimens, in *Canad. Ent.*, XXXIV, 28.

See note under *Trypeta cerasi*.

formosa COQUILLET, *Canad. Ent.*, XXVI, 71.—Cal.

pomonella WALSH, *First Ill. Rept.*, 29-33, fig. (*Trypeta*).—Ill.; larva mines in fruits of *Crataegus*, and in apples. The Apple Maggot.

LOEW, *Mon. N. A. Dipt.*, III, 265.—Ill.

GLOVER, *Rept. Ent.*, 1867, 72, note on habits.

COMSTOCK, *Rept. Dept. Agric.*, 1881-2, 195-198, pl. XIV, life history.

LINTNER, *Bull.* LXXV, N. Y. Agr. Expt. Sta., Dec. 29, 1883, brief acct.; 2d N. Y. Rept., 117-125, figs., biology; 8th N. Y. Rept., 245-249, popular acct.—N. Y.

HARVEY, *Annual Rept. Me. State College and Expt. Sta.*, 1889, 190-241, 4 pl.; full account of life history, all stages.—Me.

RILEY and HOWARD, *Insect Life*, III, 253, abstract of preceding.

WEED, N. H. Expt. Sta., *Bull.* 35, 1896, 31-35, figs., biol., etc.

- FLETCHER, Trans. R. Soc. Canada, 2d ser., v, 223, notes on damage to apples; oc. in Canada.
 N. J.—Smith Cat.; Col.—J. M. A.; N. C.—Howard, Ins. Life, vii, 279.
ribicola DOANE, Ent. News, ix, 69-72, 1 pl.—Washington; larvæ mine in currants and gooseberries. See also note by Doane, Jour. N. Y. Ent. Soc., vii, 181, with f. 4, pl. III.
 PIPER and DOANE, Bull. 36, Wash. Ex. Sta., biology with figs. and desc.—Wash.; same habits.
striatella VAN DER WULP, Biologia, Dipt., II, 408, pl. XI, f. 30.—Guerrero, Mex.
tabellaria FITCH, 1st N. Y. Rept., 66 (*Trypeta*).—N. Y.
 LOEW, Mon. N. A. Dipt., III, 263.—Canada. N. J.—Smith Cat.
zephyria SNOW, Kans. Univ. Quart., II, 164, pl. VI, f. 1.—Cal.

ACIURA.

- DESVOIDY, Myodaires, 773, 1830.
 LOEW, Europ. Bohrfliegen, 29, 1862.
 SCHINER, Fauna Austr., II, 112, 1864.
aplopappi COQUILLETT, Canad. Ent., xxvi, 72.—Cal.; larvæ in galls on *Aplopappus*.
ferruginea DOANE, Jour. N. Y. Ent. Soc., vii, 182, pl. III, f. 6.—Wash.
insecta LOEW, Mon. N. A. Dipt., I, 72, pl. II, f. 8 (*Trypeta*); III, 268, pl. x, f. 7.—Cuba.
 SCHINER, Novara, 265, oc. in S. A.
 VAN DER WULP, Biologia, Dipt., II, 410, pl. XII, f. 3, oc. in Mexico, several places.
 Hayti—O. S.; Porto Rico—Roeder; Jamaica and Fla.—Johnson.
limata COQUILLETT, Jour. N. Y. Ent. Soc., vii, 263.—New Bedford, Mass.
lutea COQUILLETT, Jour. N. Y. Ent. Soc., vii, 264.—Pareah, Utah.
nigricornis DOANE, Jour. N. Y. Ent. Soc., vii, 183, pl. III, f. 7.—Penn.
 Axton, N. Y.—M. and H.
opaca COQUILLETT, Jour. N. Y. Ent. Soc., vii, 263.—Elko, Nev.
phœnicura LOEW, Mon. N. A. Dipt., III, 269, pl. XI, f. 12.—Brazil.
 WILLISTON, Trans. Ent. Soc. Lond., 1896, 376, oc. in St. Vincent, W. I.

BLEPHARONEURA.

- LOEW, Mon. N. A. Dipt., III, 271, obs., 1873.
 VAN DER WULP, Biologia, Dipt., II, 411, 1899, table of Mexican species.
biseriata VAN DER WULP, Biologia, Dipt., II, 413, pl. XII, f. 8.—Guerrero, Mex.
diva GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 158, 1893; Ditt. del Mess., IV, 57, f. 17.—Tuxpango, Mex.
femoralis VAN DER WULP, Biologia, Dipt., II, 412, pl. XII, f. 6.—Guerrero, Mex.
fulvicollis VAN DER WULP, Biologia, Dipt., II, 411, pl. XII, f. 5.—Guerrero, Vera Cruz, and Tabasco, Mex.
io GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 158; Ditt. del Mess., IV, 57, f. 18.—Tuxpango, Mex.
pæcilogaster LOEW, Mon. N. A. Dipt., III, 270.—Cuba.
quadristriata VAN DER WULP, Biologia, Dipt., II, 413, pl. XII, f. 7.—Tabasco, Mex.
regina GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 158, 1893; Ditt. del Mess., IV, 56, f. 16.—Mex.
saga GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 158, 1893; Ditt. del Mess., IV, 56, f. 19.—Cordova, Mex.
splendida GIGLIO-TOS, see *Hexachata*.

ACROTÆNIA.

LOEW, Mon. N. A. Dipt., III, 274, 1873.

VAN DER WULP, Biologia, Dipt., II, 414, 1899, table of Mexican species.

apiata VAN DER WULP, Biologia, Dipt., II, 415, pl. XII, f. 15.—Guerrero, Mex.

incisa VAN DER WULP, Biologia, Dipt., II, 415, pl. XII, f. 13.—Guerrero, Mex.

otopappi DOANE, Jour. N. Y. Ent. Soc., VII, 183, pl. III, f. 8.—Mex.; breeds in heads of *Otopappus acuminatus*.

tarsata VAN DER WULP, Biologia, Dipt., II, 414, pl. XII, f. II.—Guerrero, Mex.

testudinea LOEW, Mon. N. A. Dipt., III, 272, pl. XI, f. 13.—Cuba.

EUTRETA.

LOEW, Mon. N. A. Dipt., III, 275, 1873.

SCHINER, Novara, 267, 1868 (*Icaria*, preoc.).

aurantiaca DOANE, Jour. N. Y. Ent. Soc., VII, 185, pl. III, f. 10.—Wash.

COQUILLETT, Jour. N. Y. Ent. Soc., VII, 264, note.

diana OSTEN SACKEN, West. Dipt., 347.—Mo.

DOANE, Jour. N. Y. Ent. Soc., VII, 184, note.—Nebr., Wash.; reared from galls of *Artemisia tridentata*. Mont.—Williston MS.

SNOW, Kans. Univ. Quart., II, 168, var. *tricolor*.—Nev., Mont.; bred from *Artemisia* sp.

longicornis SNOW, Kans. Univ. Quart., II, 168, pl. VI, f. 12.—Mont.

patagiata VAN DER WULP, Biologia, Dipt., II, 414, pl. XII, f. 10.—Guerrero, Mex.

rotundipennis LOEW, Mon. N. A. Dipt., I, 79 (*Trypeta*); III, 276, pl. X, f. 14.—Middle States.

sparsa WIEDEMANN, Auss. Zw., II, 492.—No locality.

SAY, Jour. Acad. Sci. Phil., VI, 187; Compl. Works, II, 370 (*Trypeta caliptera*).—Ind.

MACQUART, Dipt. Exot., II, 3, 200, pl. XXVI, f. 8 (*Platystoma latipennis*).—No locality.

FITCH, 1st N. Y. Rept., 67 (*Acinia novaboracensis*).—N. Y.

LOEW, Mon. N. A. Dipt., I, 78, pl. II, f. 13, syn. and desc. (*Trypeta*); III, 274, pl. X, f. 13.—Tex., Col., Cal., Canada.

SNOW, Kans. Univ. Quart., II, 167, pl. VI, f. 10, 11, notes on varieties, etc.—N. H., Me., N. Y., Wash., Col.

DOANE, Jour. N. Y. Ent. Soc., VII, 184, notes.—S. D., Cal., Pa., Col.

VAN DER WULP, Biologia, Dipt., II, 413, pl. XII, f. 9, oc. in Mexico, several places. Montreal—Chagnon; Quebec—V. d. W. and Fyles.

CARPHOTRICA.

LOEW, Europ. Bohrfliegen, 77, 1862; Mon. N. A. Dipt., III, 279, 1873.

SCHINER, Fauna Austr., II, 144, 1864.

Note.—Coquillett, Jour. N. Y. Ent. Soc., VII, 264, 1892, establishes a genus *Paracantha* for *culta*; as this is directly contrary to the opinion of Loew, Mon., III, 279, I do not accept it.

culta WIEDEMANN, Auss. Zw., II, 486 (*Trypeta*).—Savannah, Ga.

MACQUART, Dipt. Exot., II, 3, 228, pl. XXXI, f. 5 (*Acinia fimbriata*).—Carolina.

LOEW, Mon. N. A. Dipt., I, 94, pl. II, f. 29 (*Trypeta*); III, 276, pl. XI, f. 3.—Texas.

COQUILLETT, Canad. Ent., XXVI, 72 (*cultaris*).—S. Cal.

DOANE, Jour. N. Y. Ent. Soc., VII, 185, syn. of *cultaris*, etc.—Wash., Ida., Ore., S. D., Fla.

VAN DER WULP, *Biologia*, Dipt., II, 422, pl. XII, f. 30, oc. in Mex., several places. Fla.—Johnson; Beulah, N. M.—Skinner.

Note.—I have seen this species depositing eggs in flower-buds of *Helianthus biennis*, the cultivated form—J. M. A.

? *marginepunctata* MACQUART, *Hist. Nat. Dipt.*, II, 464 (*Tephritis*).—Philadelphia.

Perhaps the same as *culta*—Loew, in *O. S. Cat.*, and *Mon.*, III, 337.

ACIDOGONA.

LOEW, *Mon. N. A. Dipt.*, III, 285, 1873.

melanura LOEW, loc. cit., pl. XI, f. 6.—D. C.

EUROSTA.

LOEW, *Mon. N. A. Dipt.*, III, 280, 1873.

aterrima DOANE, *Jour. N. Y. Ent. Soc.*, VII, 187, pl. IV, f. 2.—Col.

bigeloviae COCKERELL, *Ent. Mo. Mag.*, Dec., 1890, 324; *Canad. Ent.*, XXV, 112, note.—Reared from round woolly gall on *Bigelovia* at West Cliff, Col. TOWNSEND, *Canad. Ent.*, XXV, 49 (as *bigeloviae*, n. sp.).—Col., N. M.; reared from gall on *Bigelovia*.

BAKER, *Ent. News*, VI, 174, note; oc. at Dolores, Col.

CAUDEL, *Bull.* 38, n. ser., Div. of Ent., 37, notes (*Aciura*).—Col.

S. Ida.—J. M. A.

comma WIEDEMANN, *Auss. Zw.*, II, 478 (*Trypeta*).—Ky.

MACQUART, *Dipt. Exot.*, II, 3, 229 (*Acinia*).—Philadelphia.

LOEW, *Mon. N. A. Dipt.*, I, 93 (*Trypeta*); III, 280, pl. XI, f. 2.—Md., Mass.

SNOW, *Kans. Univ. Quart.*, II, 169, pl. VII, f. 3, note.—Conn., Va.

DOANE, *Jour. N. Y. Ent. Soc.*, VII, 186, note.

N. J.—Smith Cat.

conspucata DOANE, *Jour. N. Y. Ent. Soc.*, VII, 186, pl. IV, f. 1.—Wash., N. H., N. J.

fenestrata SNOW, *Kans. Univ. Quart.*, II, 169, pl. VII, f. 7.—Ariz.

latifrons LOEW, *Mon. N. A. Dipt.*, I, 89 (*Trypeta*); III, 283, pl. X, f. 22.—Carolina, Conn.

VAN DER WULP, *Tijdschr. v. Ent.*, X, 158, pl. V, f. 15 (*Trypeta cribrata*).—Wis. [Lw.]

Detroit, Mich.; White Mts., N. H.—O. S.

reticulata SNOW, *Kans. Univ. Quart.*, II, 170, pl. VII, f. 6.—Conn., Mont.

DOANE, *Jour. N. Y. Ent. Soc.*, VII, 186, oc. in Col., S. D., Minn.

solidaginis FITCH, 1st N. Y. Rept., 66 (*Acinia*).—N. Y.; makes round galls in the stalks of several species of *Solidago*.

HARRIS, *Ins. Inj. to Veget.*, 3d edit., 620 (*Trypeta asteris*).—Mass. [Lw.]

LOEW, *Mon. N. A. Dipt.*, I, 82 (*Trypeta*); III, 279, pl. X, f. 16.—N. Y.,

D. C., New England. (Osten Sacken says Atlantic States and Canada.)

BRODIE, *Canad. Ent.*, XXIV, 137-139, biology.

SNOW, *Kans. Univ. Quart.*, II, 169, pl. VII, f. 5.—Me., Conn., Ill.

BAKER, *Ent. News*, VI, 174, notes and oc. at Ft. Collins, Col.; makes galls on *Solidago canadensis*.

FYLES, *Canad. Ent.*, XXVI, 120, desc., parasites, etc.—Quebec.

HARRINGTON, *Canad. Ent.* XXVII, 197, occupants of the galls.

MRS. A. J. SNYDER, *Canad. Ent.* XXX, 99, desc. of emergence.

Charlotte Harbor, Fla.—Johnson; N. J.—Smith Cat.; Montreal—Chagnon.

XENOCHÆTA.

SNOW, Kans. Univ. Quart., II, 166, 1894.

dichromata SNOW, loc. cit., pl. VII, f. 2.—Mt. Hood, Ore.

NEASPILOTA.

OSTEN SACKEN, Cat., 192, 1878. change of name.

LOEW, Mon. N. A. Dipt., III, 286, 1873 (*Aspilota*, preoc.).

achilleæ JOHNSON, Ent. News, XI, 328, fig.—Pa., Ga. "Common on yarrow or milfoil (*Achillea millefolium*)."
N. J.—Smith Cat.

alba LOEW, Cent., I, 72 (*Trypeta*); Mon. N. A. Dipt., I, 100 (id.); III, 285, pl. XI, f. 11.—Pa.; captured on a sp. of *Vernonia*.

OSTEN SACKEN, Cat., 260, "bred by Riley from seeds of *Vernonia*."

Mo., Col.—O. S.; N. J.—Smith Cat.

albidipennis LOEW, Cent., I, 73 (*Trypeta*); Mon. N. A. Dipt., I, 100 (id.); III, 286, pl. XI, f. 10.—Pa.; captured on a sp. of *Vernonia*.

N. J.—Smith Cat.

brunneistigmata DOANE, Jour. N. Y. Ent. Soc., VII, 187, pl. IV, f. 3.—No locality.

signifera COQUILLET, Canad. Ent., XXVI, 73.—S. Cal.

vernoniæ LOEW, Cent., I, 74 (*Trypeta*); Mon. N. A. Dipt., I, 74 (id.); III, 286, pl. XI, f. 8.—Pa.; captured on a sp. of *Vernonia*.

COQUILLET, Jour. N. Y. Ent. Soc., VII, 262, refers to *Trypeta*.

N. J.—Smith Cat.; Inverness, Fla.—Johnson.

ICTERICA.

LOEW, Mon. N. A. Dipt., III, 287, 1873.

circinata LOEW, Mon. N. A. Dipt., III, 288.—N. Y. N. J.—Smith Cat.

lichtensteinii WIEDEMANN, Auss. Zw., II, 497 (*Trypeta*).—Mex.

LOEW, Mon. N. A. Dipt., I, 92 (*Trypeta*); III, 289, pl. XI, f. 9.—Mex.

seriata LOEW, Mon. N. A. Dipt., I, 84 (*Trypeta*); III, 287, pl. X, f. 18.—Ill.

SNOW, Kans. Univ. Quart., II, 171, note on female.—Nebr.

Detroit, Mich., and Mass.—O. S.; N. J.—Smith Cat.; Montreal—Chagnon.

BARYPLEGMA.

VAN DER WULP, Biologia, Dipt., II, 416, 1899.

gilva VAN DER WULP, loc. cit., pl. XII, f. 14.—Jalisco, Mex.

ENSINA.

DESVOIDY, Myodaires, 751, 1830.

LOEW, Europ. Bohrfliegen, 64, 1862; Mon. N. A. Dipt., III, 291, 1873.

SCHNER, Fauna Austr., II, 143, 1864.

VAN DER WULP, Biologia, Dipt., II, 416, table of Mexican species, 1899.

aurifera THOMSON, Eugen. Resa, 585 (*Trypeta*).—Cal.

OSTEN SACKEN, Cat., 195, gen. ref. by Loew.

COQUILLET, Jour. N. Y. Ent. Soc., VII, 264, refers to *Rhagoletis*, as a synonym of *humilis* LOEW.

conspersa VAN DER WULP, Biologia, Dipt., II, 417, pl. XII, f. 18.—Guerrero, Mex.

despecta VAN DER WULP, Biologia, Dipt., II, 418, pl. XII, f. 19.—Guerrero, Mex.

guttularis VAN DER WULP, Biologia, Dipt., II, 418, pl. XII, f. 21.—Guerrero, Mex.

humilis LOEW, Mon. N. A. Dipt., I, 81 (*Trypeta*); III, 291, pl. X, f. 17, and note on Bigot's types.—Cuba.

BIGOT, in Sagra's Cuba, 824, pl. XX, f. 10 (*Acinia picciola*).—Cuba.

OSTEN SACKEN, West. Dipt., 345, oc. in Colorado.

VAN DER WULP, *Biologia*, Dipt., II, 417, pl. XII, f. 15.—Guerrero and Tabasco, Mex.

COQUILLETT, Jour. N. Y. Ent. Soc., VII, 264, gen. ref. (*Tephritis picciola*). Porto Rico—Roeder; Jamaica—Johnson; Key West, Fla.—Osten Sacken.

Note.—Loew's note rejecting Bigot's name shows a valid ground, in my opinion, although there has been a tendency the other way in recent years.

luculenta VAN DER WULP, *Biologia*, Dipt., II, 417, pl. XII, f. 17.—Guerrero, Mex.

mediana VAN DER WULP, *Biologia*, Dipt., II, 418, pl. XII, f. 20.—Guerrero, Mex.

peregrina LOEW, Mon. N. A. Dipt., III, 292, pl. x, f. 30.—Brazil.

WILLISTON, Trans. Ent. Soc. Lond., 1896, 377, pl. XIII, f. 130.—St. Vincent, W. I.

COQUILLETT, Proc. U. S. N. M., XXII, 258, oc. in Porto Rico (*Tephritis*).

VAN DER WULP, *Biologia*, Dipt., II, 417, pl. XII, f. 16.—Orizaba and Guerrero, Mex.

picciola BIGOT, see *humilis*.

TEPHRITIS.

LATREILLE, Hist. Nat. Crust. et Ins., XIV, 389, 1804.

LOEW, Europ. Bohrfiegen, 96, 1862; Mon. N. A. Dipt., III, 295, 1873.

SCHINER, Fauna Austr., II, 151, 1864.

VAN DER WULP, *Biologia*, Dipt., II, 419, 1899, table of Mexican species.

? **acutangula** THOMSON, Eugen. Resa, 583 (*Trypeta*).—Cal.

LOEW, Mon. N. A. Dipt., III, 335, note, not seen.

COQUILLETT, Jour. N. Y. Ent. Soc., VII, 265, makes a syn. of *abstersa*, in *Eurcasta*.

affinis SNOW, Kans. Univ. Quart., II, 172, pl. VII, f. 12.—Wash., Mont., Cal.

COQUILLETT, Jour. N. Y. Ent. Soc., VII, 264, note.

albiceps LOEW, Mon. N. A. Dipt., III, 302, pl. XI, f. 5.—Canada, Me.

N. H. and N. J.—SNOW; White Mts., N. H.—SLOSSON; Axton, N. Y.—M. and H.; Province of Quebec—Fyles.

angustipennis LOEW, Germ. Zeitsch., v, 382, pl. II, f. 4 (*Trypeta*); Europ. Bohrfiegen, 113; Mon. N. A. Dipt., III, 293.—Europe; Europe; Yukon R., N. A.

ZETTERSTEDT, Dipt. Scand., VI, 2229.

californica DOANE, Jour. N. Y. Ent. Soc., VII, 190, pl. IV, f. 7.—Cal.

COQUILLETT, Jour. N. Y. Ent. Soc., VII, 266, note.

cancellata VAN DER WULP, *Biologia*, Dipt., II, 420, pl. XII, f. 25.—Guerrero, Mex.

clathrata LOEW, Mon. N. A. Dipt., I, 80 (*Trypeta*); III, 297, pl. x, f. 5.—Middle States.

euryptera LOEW, Mon. N. A. Dipt., III, 304.—West Point, N. Y.

fibulata VAN DER WULP, *Biologia*, Dipt., II, 421, pl. XII, f. 26.—Orizaba, Mex.

finalis LOEW, Cent., II, 78 (*Trypeta*); Mon. N. A. Dipt., III, 296, pl. XI, f. 4.—Texas, Cal.

Beulah, N. M.—SKINNER.

DOANE, Jour. N. Y. Ent. Soc., VII, 188, oc. and note; "reared from the heads of various Compositæ."—IDA, S. D., Colo., Cal., N. M.

VAN DER WULP, *Biologia*, Dipt., II, 419, pl. XII, f. 22.—Mexico, several places.

Coscom and Orizaba, Mex.—Giglio-Tos.

fucata FABRICIUS, Ent. Syst., IV, 359 (*Musca*); Syst. Antl., 321.—W. Indies?

WIEDEMANN, Auss. Zw., II, 505 (*Trypeta*).—S. A.

LOEW, Mon. N. A. Dipt., III, 300.—Argentina.

- WILLISTON, Trans. Ent. Soc. Lond., 1896, 377, pl. XII, f. 129.—St. Vincent, W. I.
- JOHNSON, Ent. News, XIV, 100, oc. in N. J.
- Jamaica and St. Augustine, Fla.—Johnson.
- gemella* COQUILLETT, Jour. N. Y. Ent. Soc., x, 181.—Las Vegas Hot Spr., N. M.
- geminata* LOEW, Cent., II, 75 (*Trypeta*); Mon. N. A. Dipt., III, 298, pl. XI, f. 1.—Pa.
- N. J.—Smith Cat.
- ? *genalis* THOMSON, Eugen. Resa, 585 (*Trypeta*).—Cal.
- LOEW, Mon. N. A. Dipt., III, 336, note, not seen.
- Hudsonian Zone, N. M.—Cockerell; Beulah, N. M.—Skinner.
- inornata* COQUILLETT, Jour. N. Y. Ent. Soc., x, 181.—Las Vegas Hot Spr., N. M.
- intricata* VAN DER WULP, Biologia, Dipt., II, 422, pl. XII, f. 29.—Durango, Mex.
- melliginis* FITCH, see *Rivellia viridulans*.
- murina* DOANE, Jour. N. Y. Ent. Soc., VII, 189, pl. IV, f. 5.—Wash.
- COQUILLETT, Proc. Wash. Acad. Sci., II, 459, oc. in Alaska.
- obscuripennis* SNOW, Kans. Univ. Quart., II, 174, pl. VII, f. 8.—No locality.
- COQUILLETT, Jour. N. Y. Ent. Soc., VII, 264, note.
- obsoleta* VAN DER WULP, Biologia, Dipt., II, 421, pl. XII, f. 27.—Orizaba, Mex.
- picturata* SNOW, Kans. Univ. Quart., II, 173.—Fla.
- platyptera* LOEW, Mon. N. A. Dipt., III, 306.—Conn.
- Hudsonian Zone, N. M.—Cockerell.
- rufipennis* DOANE, Jour. N. Y. Ent. Soc., VII, 190, pl. IV, f. 8.—Cal.
- semifusca* VAN DER WULP, Biologia, Dipt., II, 422, pl. XII, f. 28.—Durango, Mex.
- staminea* VAN DER WULP, Biologia, Dipt., II, 419, pl. XII, f. 23.—Orizaba, Mex.
- subradiata* VAN DER WULP, Biologia, Dipt., II, 420, pl. XII, f. 24.—Guerrero, Mex.
- tabellaria* FITCH, 1st N. Y. Rept., 770.—N. Y.
- LOEW, Mon. N. A. Dipt., III, 263.—Canada.
- tenebrosa* COQUILLETT, Jour. N. Y. Ent. Soc., VII, 264.—Custer Co., Col.
- variabilis* DOANE, Jour. N. Y. Ent. Soc., VII, 188, pl. IV, f. 4.—Wash., Ore.
- webbii* DOANE, Jour. N. Y. Ent. Soc., VII, 189, pl. IV, f. 6.—Ida., Minn.
- COQUILLETT, Jour. N. Y. Ent. Soc., VII, 266, note.

EUARESTA.

- LOEW, Mon. N. A. Dipt., III, 295, 308. 1873.
- VAN DER WULP, Biologia, Dipt., II, 423, 1899, table of Mexican species.
- æqualis* LOEW, Mon. N. A. Dipt., I, 86 (*Trypeta*); III, 308, pl. X, f. 20.—Ill.
- OSTEN SACKEN, West. Dipt., 345 (*Euaressta* sp.).
- MARLATT, Ent. News, I, 168, reared from seed-pods of *Xanthium*; Proc. Ent. Soc. Wash., II, No. 1, "The *Xanthium Trypeta*"; same habits; Insect Life, III, 129 and 312, notes on same habits.
- SNOW, Kans. Univ. Quart., II, 171, pl. VII, f. 10, correction of Loew's desc.—Pa., Va., Ill., N. M., Col.
- COQUILLETT, Jour. N. Y. Ent. Soc., VII, 264, refers to *Tephritis*.
- Md., Ohio—O. S.; Idaho—J. M. A.
- N. J.—Smith Cat., "On *Ambrosia artemisiifolia*, ragweed."
- angustipennis* VAN DER WULP, Biologia, Dipt., II, 425, fig.—Mexico City.
- araneosa* COQUILLETT, Canad. Ent., XXVI, 74; Jour. N. Y. Ent. Soc., VII, 266, note.—S. Cal.
- audax* GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 158, 1893; Ditt. del Mess., IV, 55, f. 22.—Tuxpango, Mex.
- bella* LOEW, Mon. N. A. Dipt., I, 88 (*Trypeta*); III, 311, pl. X, f. 23.—N. Y., D. C.
- "Rather common everywhere in the U. S."—O. S.

- Montreal—Chagnon; White Mts., N. H.—Slosson; Fla.—Johnson.
- bellula** SNOW, Kans. Univ. Quart., II, 172.—Ariz.
- DOANE, Jour. N. Y. Ent. Soc., VII, 192, oc. in Cal.
- californica** COQUILLET, Canad. Ent., XXVI, 73.—S. Cal.
- crenulata** VAN DER WULP, Biologia, Dipt., II, 423, fig.—Morelos and Guerrero, Mex.
- festiva** LOEW, Mon. N. A. Dipt., I, 86 (*Trypeta*); III, 309, pl. x, f. 21.—Pa., Conn.
- SNOW, Kans. Univ. Quart., II, 171, pl. vi, f. 9.—Kans., Va.
- N. J., Ill., Ohio, Quebec—O. S.
- latipennis** TOWNSEND, Zoe, IV, 13.—Chacaltianguis, Mex.
- melanogaster** LOEW, Mon. N. A. Dipt., I, 90, pl. II, f. 24; III, 315, pl. x, f. 24.—Cuba.
- WILLISTON, Trans. Ent. Soc. Lond., 1896, 377, pl. XIII, f. 131, oc. and notes.—St. Vincent, W. I. Porto Rico—Roeder.
- mexicana** WIEDEMANN, Auss. Zw., II, 551 (*Trypeta*).—Mex.
- LOEW, Mon. N. A. Dipt., III, 317, pl. x, f. 28.—Texas.
- munda** COQUILLET, Jour. N. Y. Ent. Soc., VII, 265.—Elko, Nev.
- mundula** COQUILLET, Jour. N. Y. Ent. Soc., VII, 265.—Pareah, Utah.
- pura** LOEW, Mon. N. A. Dipt., III, 320.—Mass.
- rufula** VAN DER WULP, Biologia, Dipt., II, 424, fig.—Vera Cruz, Mex.
- scitula** VAN DER WULP, Biologia, Dipt., II, 425, fig.—N. Sonora, Mex.
- sobrinata** VAN DER WULP, Biologia, Dipt., II, 425, fig.—Guerrero and Orizaba, Mex.
- stigmatica** COQUILLET, Jour. N. Y. Ent. Soc., x, 180.—Flagstaff and Williams, Ariz.
- tapetis** COQUILLET, Canad. Ent., XXVI, 75.—N. M.
- DOANE, Jour. N. Y. Ent. Soc., VII, 191, oc. in Col.
- timida** LOEW, Cent., II, 76 (*Trypeta*); Mon. N. A. Dipt., III, 312, pl. x, f. 25.—Mex.
- VAN DER WULP, Biologia, Dipt., II, 424, fig.—Several places in Mexico.
- tricolor** DOANE, Jour. N. Y. Ent. Soc., VII, 191, pl. IV, f. 9.—S. D.
- COQUILLET, Jour. N. Y. Ent. Soc., VII, 264, note.

URELLIA.

- DESVOIDY, Myodaires, 774, 130.
- LOEW, Europ. Bohrfliegen, 117, 1862.
- VAN DER WULP, Biologia, Dipt., II, 426, 1899, table of species in Mexico.
- abstersa** LOEW, Cent., II, 77 (*Trypeta*); Mon. N. A. Dipt., III, 323, pl. XI, f. 7.—N. A.; Cuba.
- VAN DER WULP, Biologia, Dipt., II, 426, fig., oc. in Mexico City.
- COQUILLET, Jour. N. Y. Ent. Soc., VII, 264, note.
- N. J.—Smith Cat.; Key West, Fla.—Johnson; Hudsonian Zone, N. M.—Cockerell; Beulah, N. M.—Skinner (*Euaresia*).
- actinobola** LOEW, Mon. N. A. Dipt., III, 326.—Texas.
- COQUILLET, Jour. N. Y. Ent. Soc., VII, 266, note.
- aldrichii** DOANE, Jour. N. Y. Ent. Soc., VII, 192, pl. IV, f. II.—S. D.
- COQUILLET, Jour. N. Y. Ent. Soc., VII, 266, note.
- bisetosa** COQUILLET, Jour. N. Y. Ent. Soc., VII, 266.—Las Cruces, N. M., and Marysvale, Utah.
- eugenia** VAN DER WULP, Biologia, Dipt., II, 427, fig.—Guerrero, Mex.
- femoralis** THOMSON, Eugen. Resa, 585 (*Trypeta*).—Cal.
- LOEW, Mon. N. A. Dipt., III, 336, note, not seen.

- imperfecta* COQUILLETT, Jour. N. Y. Ent. Soc., x, 181.—Williams, Ariz.
mevarna WALKER, List, iv, 1023 (*Trypeta*).—Fla. (Is perhaps *solaris*—O. S.)
 Hudsonian Zone, N. M.—Cockerell, det. by Coquillett.
 Beulah, N. M.—Skinner.
nigricornis COQUILLETT, Jour. N. Y. Ent. Soc., vii, 266.—Col.
pacifica DOANE, Jour. N. Y. Ent. Soc., vii, 192, pl. iv, f. 10.—Oregon (the locality was omitted in printing—Doane in litt.).
 COQUILLETT, Jour. N. Y. Ent. Soc., vii, 266, note.
polyclona LOEW, Mon. N. A. Dipt., iii, 324.—Cuba.
 VAN DER WULP, Biologia, Dipt., ii, 426, fig.—N. Sonora, Mex.
radifera COQUILLETT, Jour. N. Y. Ent. Soc., vii, 267.—Tucson, Ariz.
solaris LOEW, Mon. N. A. Dipt., i, 84, pl. ii, f. 19; iii, 325, pl. x, f. 19.—Ga.
 OSTEN SACKEN, West. Dipt., 345, probably the same in Cal.
 WILLISTON, Trans. Ent. Soc. Lond., 1896, 377, pl. xiii, f. 132, oc. and note.
 —St. Vincent, W. I.
 VAN DER WULP, Biologia, Dipt., ii, 427, fig., oc. in Guerrero, Mex.
 COQUILLETT, Jour. N. Y. Ent. Soc., vii, 266, note.
 Puebla, Mex.—Giglio-Tos; N. J.—Smith Cat.; Fla.—Johnson.
 See also *mevarna*.
stigmatica COQUILLETT, Jour. N. Y. Ent. Soc., vii, 266.—Col.
vicina VAN DER WULP, Biologia, Dipt., ii, 427, fig.—Orizaba, Mex.

UROPHORA.

- DESVOIDY, Myodaires, 769, 1830.
 SCHINER, Fauna Austr., ii, 134, 1864.
antillarum MACQUART, Dipt. Exot., Suppl. iv, 289, pl. xxvi, f. 17.—Antilles.
avala WALKER, List, iv, 1020.—Jamaica. "A small Ortalid"—O. S., from type.
quadrifasciata MEIGEN, Syst. Besch., v, 331, pl. XLIX, f. 3 (*Trypeta*).—Europe.
 SCHINER, Fauna Austr., ii, 139.
 MACQUART, Dipt. Exot., ii, 3, 221, oc. in Cuba (mentioned as *quadrivittata*); see O. S. Cat., 195.
Note.—None of the three preceding, probably, belong to *Urophora* at all.

PRIONELLA.

- DESVOIDY, Myodaires, 1830.
beauvoisii DESVOIDY, Myodaires, 760.—N. A.?
villosa DESVOIDY, Myodaires, 760.—U. S.
 LOEW, in O. S. Cat., 195, thinks it altogether uncertain whether these two species belong to Trypetidae or Ortalidae. They seem to be quite unrecognizable from the descriptions.

MICROPEZIDÆ.

- VAN DER WULP, Biologia, Dipt., ii, 360–363, 1897.
Note.—For Bigot's species of *Taniaptera*, see *Tanyptera* and *Calobata*.
 I do not find any described species of *Tetanura* (Fallén, Opomyz., 10, 1820; Schiner, Fauna Austr., ii, 190, 1864), although the genus is mentioned in Williston's Manual.

NERIUS.

- FABRICIUS, Syst. Antl., 264, 1805.
 MACQUART, Hist. Nat. Dipt., ii, 492, 1835.

- bistriatus** WILLISTON, Trans. Ent. Soc. Lond., 1896, 373, pl. xii, f. 126.—St. Vincent, W. I.
- cinereus** ROEDER, Stett. Ent. Zeit., 1885, 348.—Porto Rico.
- flavifrons** BIGOT, Annales, 1886, 372.—Mex.
VAN DER WULP, Biologia, Dipt., ii, 364.—Tabasco and N. Yucatan, Mex.
HUBBARD, Psyche, May, 1899, suppl., 14, referred to as bred from giant cactus (*Cereus giganteus*) in Ariz.
- pilifer** FABRICIUS, Syst. Antl., 264.—S. A.
WIEDEMANN, Auss. Zw., ii, 550.—S. A.
VAN DER WULP, Biologia, Dipt., ii, 364, oc. in Tabasco, Mex.
- plurivittatus** BIGOT, Annales, 1886, 372.—Mex.
- xanthopus** SCHINER, Novara, 247.—S. A.
GIGLIO-TOS, Ditt. del Mess., iv, 64, oc. in Orizaba, Mex.

CARDIACEPHALA.

- MACQUART, Dipt. Exot., ii, 3, 242, 1843.
- VAN DER WULP, Biologia, Dipt., ii, 375, 1898, table of Mexican spp.
- myrmex** SCHINER, Novara, 254.—S. A.
GIGLIO-TOS, Ditt. del Mess., iv, 63, oc. at Mexico City, and in Tuxpango, Mex.
VAN DER WULP, Biologia, Dipt., ii, 376, oc. in Vera Cruz and Tabasco, Mex.
- nigra** SCHINER, Novara, 255.—S. A.
VAN DER WULP, Biologia, Dipt., ii, 376, oc. in Vera Cruz, Mex., and Guatemala.

MICROPEZA.

- MEIGEN, Illig. Mag., ii, 276, 1803; Syst. Besch., v, 382, 1826.
- SCHINER, Fauna Austr., ii, 195, 1864.
- LOEW, Berl. Ent. Zeitsch., xii, 1868, 161-167 and 393.
- VAN DER WULP, Biologia, Dipt., ii, 364, 1897, table of Mexican species.
- bilineata** VAN DER WULP, Biologia, Dipt., ii, 366.—Guerrero, Mex.
- bisetosa** COQUILLETT, Jour. N. Y. Ent. Soc., x, 177.—Prescott, Ariz., and Las Vegas Hot Spr., N. M.
- divisa** WIEDEMANN, Auss. Zw., ii, 540 (*Calobata*).—Mex.
- incisa** WIEDEMANN, Auss. Zw., ii, 547.—Brazil.
SCHINER, Novara, 250 (*appendiculata*).—S. A.
GIGLIO-TOS, Ditt. del Mess., iv, 64, oc. in Tuxpango, Mex., and syn.
- limbata** ROEDER, Stett. Ent. Zeit., 1885, 347.—Porto Rico.
COQUILLETT, Proc. U. S. N. M., xxii, 257, oc. in same.
- nigricornis** VAN DER WULP, Biologia, Dipt., ii, 366.—Guerrero, Mex.
- obscura** BIGOT, Annales, 1886, 387.—Mex.
VAN DER WULP, Biologia, Dipt., ii, 365, redesc.—Vera Cruz and Tabasco, Mex.
- occipitalis** VAN DER WULP, Biologia, Dipt., ii, 365.—Guerrero, Mex.
- pectoralis** WIEDEMANN, Auss. Zw., ii, 540 (*Calobata*).—Mex.
- producta** WALKER, List, iv, 1056.—Ga. Cuba—Loew; Jamaica—Johnson.
- ruficeps** VAN DER WULP, Biologia, Dipt., ii, 365.—N. Sonora, Mex.
- stigmatica** VAN DER WULP, Biologia, Dipt., ii, 366, pl. ix, f. 17.—Mexico, several places.
- turcana** TOWNSEND, Trans. Kans. Acad. Sci., xiii, 136.—Turkey Tanks, Ariz. S. D., Kans., Ida.—J. M. A.

CALOBATA.

- MEIGEN, Illig. Mag., II, 276, 1803; Syst. Besch., v, 376, 1826.
- SCHINER, Fauna Austr., II, 191, 1864.
- VAN DER WULP, Biologia, Dipt., II, 367, 1897, table of Mexican species.
- albiceps** VAN DER WULP, Tijdschr. v. Ent., XXVI, sep. 50.—Quebec.
- alesia** WALKER, List, IV, 1048.—Martin Falls, Canada.
- New England—O. S.; N. J.—Smith Cat.
- alva** WALKER, List, IV, 1053.—Jamaica.
- angulata** LOEW, Cent., VII, 87.—Colombia, S. A.
- SCHINER, Novara, 253.—Brazil.
- WILLISTON, Trans. Ent. Soc. Lond., 1896, 372, oc. in St. Vincent, W. I., and remarks on the synonymy.
- annulata** FABRICIUS, Ent. Syst., IV, 338 (*Musca*); Syst. Antl., 262.—Cayenne, S. A.
- WIEDEMANN, Auss. Zw., II, 534, same locality.
- VAN DER WULP, Tijdschr. v. Ent., XXVI, 49; Biologia, Dipt., II, 373.—Tabasco, Mex., and Panama.
- antennipes** SAY, Jour. Acad. Sci. Phil., III, 97; Compl. Works, II, 83 (*antennipes*).—Pa.
- WIEDEMANN, Auss. Zw., II, 546.
- OSTEN SACKEN, Cat., 179, oc. in Md. and Ky.; name changed to *antennipennis*, which destroys the original significance, of the insect waving its fore feet like antennæ.
- N. J.—Smith Cat.; White Mts., N. H.—Slosson.
- bracteata** VAN DER WULP, Biologia, Dipt., II, 371, pl. IX, f. 23.—Vera Cruz, Mex.
- callichroma** BIGOT, Annales, 1886, 373.—Mex.
- GIGLIO-TOS, Ditt. del Mess., IV, 63, note.
- VAN DER WULP, Biologia, Dipt., II, 375, pl. IX, f. 30.—Vera Cruz and Yucatan, Mex.; Costa Rica.
- calocephala** BIGOT, Annales, 1886, 575.—Mex.
- calosoma** BIGOT, Annales, 1886, 379 (*Taniaptera*).—Mex.
- Orizaba, Mex.—Giglio-Tos.
- conveniensi** VAN DER WULP, Biologia, Dipt., II, 373.—Panama.
- diversa** SCHINER, Novara, 250.—S. A.
- VAN DER WULP, Tijdschr. v. Ent., XXVI, sep. 49, oc. in Mex.
- erythrocephala** FABRICIUS, Syst. Antl., 260.—S. A.
- WIEDEMANN, Auss. Zw., II, 532.—Brazil.
- WALKER, List, IV, 1055, oc. in Brazil and Mexico.
- SCHINER, Novara, 250, notes.—S. A.
- VAN DER WULP, Tijdschr. v. Ent., XX, 49; Biologia, Dipt., II, 369.—Guadeloupe; Orizaba and Vera Cruz, Mex., Guatemala, Costa Rica.
- Guadeloupe—O. S.
- fasciata** FABRICIUS, Syst. Ent., 781 (*Musca*); Ent. Syst., IV, 336 (id.); Syst. Antl., 262.—W. I.
- WIEDEMANN, Auss. Zw., II, 536.—W. I.
- COQUILLETT, Proc. U. S. N. M., XXII, 257, oc. in Porto Rico (on human excrement—Howard).
- Porto Rico—Roeder; Jamaica—Johnson; Fla.—Johnson.
- geometra** DESVOIDY, Myodaires, 736 (*Neria*).—Carolina. Texas, Ky.—O. S.
- ? DESVOIDY, Myodaires, 736–738 (*Neria atripes*, *carolinensis*, and *longipes* FAB.).—Car. [O. S. Cat., 180, with a doubt.]
- grata** VAN DER WULP, Biologia, Dipt., II, 371, pl. IX, f. 24.—Guerrero and N. Yucatan, Mex.

- ichneumonea** BRAUER, Sitzungsbericht d. K. Akad., xci, 388, pl. iv, 1885.—Mex.
 BIGOT, Annales, 1886, 381 (*Grallomyia caloptera*).—Mex.
 GIGLIO-TOS, Ditt. del Mess., iv, 63 (*Calobata caloptera* BIG.).—Mex.
 VAN DER WULP, Biologia, Dipt., ii, 373, syn. and desc.—Guerrero, Mex., and Guatemala.
- lasciva** FABRICIUS, Ent. Syst., Suppl., 574 (*Musca*); Syst. Antl., 262.—Cayenne, S. A.
 WIEDEMANN, Auss. Zw., ii, 535.—Cayenne.
- MACQUART**, Hist. Nat. Dipt., ii, 491, pl. xx, f. 9 (*Tanioptera trivittata*); Dipt. Exot., ii, 3, 245, pl. xxxiii, f. 3 (*Calobata albimana*).—N. A.; the latter reference mentions Philadelphia, Cuba, Java and Australia, of which the two last certainly require confirmation.
- GUÉRIN, Iconographie, iii, 553, pl. ciii, f. 7 (*Calobata ruficeps*).—Cuba.
 ? WALKER, Dipt. Saund., 390 (*valida*).—U. S. [O. S., with a doubt.]
- JENNICKE, Neue Exot. Dipt., 4, oc. in Cuba.
 SCHINER, Novara, 253, desc. and syn. of *albimana*.—S. A.
 OSTEN SACKEN, Cat., 259, note and syn.
- COQUILLET, Proc. U. S. N. M., xxii, 257, oc. in Porto Rico.
 N. J.—Smith Cat.; Jamaica and Fla.—Johnson; Porto Rico—Roeder.
- latifascia** VAN DER WULP, Biologia, Dipt., ii, 372, pl. ix, f. 25.—Costa Rica and Panama.
- lunulata** VAN DER WULP, Biologia, Dipt., ii, 372, pl. ix, f. 26.—Presidio, Vera Cruz, Tabasco, and N. Yucatan, all in Mex.
- maculosa** LOEW, Cent., vii, 88.—Cuba.
- manifesta** VAN DER WULP, Biologia, Dipt., ii, 370, pl. ix, f. 20.—Costa Rica.
- mellea** WILLISTON, Trans. Ent. Soc. Lond., 1896, 373, pl. xii, f. 126.—St. Vincent, W. I.
- munda** VAN DER WULP, Biologia, Dipt., ii, 374, pl. ix, f. 29.—Guerrero, Mex.
- nebulosa** LOEW, Cent., vii, 89.—Fla. Fla., several places—Johnson.
- pallipes** SAY, Jour. Acad. Sci. Phil., iii, 97; Compl. Works, ii, 84.—Mo.
 WIEDEMANN, Auss. Zw., ii, 548 (*Micropeza*).
 Hudson B. Terr.—O. S.; White Mts., N. H.—Slosson.
- placida** LOEW, Cent., vii, 90.—Cuba.
- plectilis** GIGLIO-TOS, Boll. R. Univ. Torino, viii, No. 158, 1893; Ditt. del Mess., iv, 62.—Mex.
 VAN DER WULP, Biologia, Dipt., ii, 370, pl. ix, f. 21.—Guerrero, Mex.
- pleuritica** JOHNSON, Proc. Acad. Nat. Sci. Phil., 1894, 279.—Jamaica.
- rubella** VAN DER WULP, Biologia, Dipt., ii, 368, pl. ix, f. 18.—Guerrero, Mex.
- russula** VAN DER WULP, Biologia, Dipt., ii, 370, pl. ix, f. 22.—Guerrero, Mex.
- stellata** VAN DER WULP, Biologia, Dipt., ii, 375.—Tabasco, Mex.
- univitta** WALKER, List, iv, 1049.—N. Y. and Martin Falls, Canada.
 N. J.—Smith Cat.; Montreal—Chagnon.
- varipes** JOHNSON, Proc. Acad. Nat. Sci. Phil., 1895, 306.—Jacksonville, Fla.
- vittipennis** COQUILLET, Proc. U. S. N. M., xxv, 125.—Frontera in Tabasco, Mex.

TANYPEZA.

- FALLÉN, Opomyzides, 4, 1820.
- MEIGEN, Syst. Besch., vi, 100, 1830.
- SCHINER, Fauna Austr., ii, 283, 1864.
- VAN DER WULP, Biologia, Dipt., ii, 362, 1897, table of species in Mexico.
- HENDEL, Wien. Ent. Zeit., xxii, 201, 1903, places in Ortalidæ.
- claripennis** SCHINER, Novara, 247.—Brazil.

WILLISTON, Trans. Ent. Soc. Lond., 1896, 371, pl. XII, f. 124.—St. Vincent, W. I.

claripennis SCHINER, Novara, 247.—Brazil.

VAN DER WULP, Biologia, Dipt., II, 362.—Guerrero, Morelos, and Tabasco, Mex.; Costa Rico.

mexicana GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 158, 1893; Ditt. del Mess., IV, 61.—Mex.

VAN DER WULP, Biologia, Dipt., II, 363, note; may be same as *ornatipes* BIGOT.

ornatipes BIGOT, Annales, 1886, 380 (*Taniaptera*).—Mex.

VAN DER WULP, Biologia, Dipt., II, 363, gen. ref.

pallidipennis BIGOT, Annales, 1886, 380 (*Taniaptera*).—Mex.

VAN DER WULP, Biologia, Dipt., II, 363, footnote, gen. ref.; may be same as *claripennis*.

rutila VAN DER WULP, Biologia, Dipt., II, pl. IX, f. 15.—Guerrero, Mex.

TETRADISCUS.

BIGOT, Annales, 1886, 374.

VAN DER WULP, Biologia, Dipt., II, 363, note on position of genus.

notatus BIGOT, Annales, 1886, 374.—Mex.

pictus BIGOT, Annales, 1886, 370.—Rocky Mts.

SEPSIDÆ.

Note.—For *Madiza annulicornis*, see *Siphonella*.

PROCHYLIZA.

WALKER, List, IV, 1045, 1849.

xanthostoma WALKER, loc. cit.—Martin Falls, Canada.

OSTEN SACKEN, Cat., 199, note on family.

COQUILLETT, Proc. Wash. Acad. Sci., II, 461, oc. in Alaska, Ga., Texas, Kansas.

N. J.—Smith Cat.; White Mts.—Slosson.

TYLEMYIA.

GIGLIO-TOS, Boll. R. Univ. Torino, VIII, No. 158, 1893, 14, change of name.

MACQUART, Dipt. Exot., II, 3, 231, 1843 (*Omalocephala*, preoc.).

fusca MACQUART, Dipt. Exot., II, 3, 232, pl. XXXI, f. 12 (*Omalocephala*).—Guiana.

GIGLIO-TOS, Ditt. del Mess., IV, 61, oc. in Tuxpango, Mex.

THEMIRA.

DESVOIDY, Myodaires, 746, 1830.

MACQUART, Hist. Nat. Dipt., II, 479, 1835 (*Cheligaster*).

SCHINER, Fauna Austr., II, 181, 1864.

putris LINNÉ, Fauna Suecica, 2d edit., 456, No. 1850, var. *fineti* (*Musca*).—Europe; "habitat in finetis copiosissime et instar grandinum."

FABRICIUS, Spec. Ins., II, 445 (*Musca*); Ent. Syst., IV, 334 (id.); Syst. Antl., 323 (*Tephritis*).

FALLÉN, Orthalides, 21 (*Scpsis*).

MEIGEN, Syst. Besch., V, 292 (*Scpsis*).

STÆGER, Mon. Sepsis, Kroyer's Tidskr., 1845, 29 (*Sepsis*).

MACQUART, Hist. Nat. Dipt., II, 479 (*Cheligaster*).

ZETTERSTEDT, Dipt. Scand., VI, 2290.

SCHINER, Fauna Austr., II, 182.

White Mts., N. H.—Slosson; Montreal—Chagnon; S. D.—J. M. A.

Note.—I found the adults in abundance attending plant-lice on cotton-wood.

SEPSIS.

FALLÉN, Orthalides, 20, 1820.

MEIGEN, Syst. Besch., v, 285, 1826.

SCHINER, Fauna Austr., II, 177, 1864.

discolor BIGOT, in Sagra's Cuba, 823.—Cuba. Porto Rico—Roeder.

ecalcarata THOMSON, Eugenes Resa, 588.—Cal.

flavimanus MEIGEN, Syst. Besch., v, 288.—Europe.

SCHINER, Fauna Austr., II, 180.

COQUILLETT, Proc. Wash. Acad. Sci., II, 461, oc. in N. A.—Saldovia and Juneau, Alaska.

insularis WILLISTON, Trans. Ent. Soc. Lond., 1896, 431, pl. XIV, f. 159.—St. Vincent, W. I.

COQUILLETT, Proc. U. S. N. M., XXII, 259, oc. in Porto Rico.

referens WALKER, List, IV, 999.—N. A.

COQUILLETT, Proc. Wash. Acad. Sci., II, 461, oc. at Lowe Inlet, Brit. Col.

scabra LOEW, Wien. Ent. Monatsch., v, 42.—Cuba.

similis MACQUART, Dipt. Exot., Suppl. IV, 296, pl. XXVII, f. 11.—N. A.

vicaria WALKER, List, IV, 998.—Fla.

St. Augustine and Inverness, Fla.—Johnson.

violacea MEIGEN, Syst. Besch., v, 289.—Europe.

ZETTERSTEDT, Dipt. Scand., VI, 2289.

SCHINER, Fauna Austr., II, 179.

GIGLIO-TOS, Ditt. del Mess., IV, 60, oc. in Coscom, Mex.

HOWARD, Proc. Wash. Acad. Sci., II, 586, figs. and habits; reared abundantly from human excrement; Canad. Ent., XXXIII, 44, bred from cow-dung.—N. H., N. J., D. C., Md., Va.; Va.

Montreal—Chagnon; Hudsonian Zone, N. M.—Cockerell; Beulah, N. M. Skinner.

NEMOPODA.

DESVOIDY, Myodaires, 743, 1830.

SCHINER, Fauna Austr., II, 180, 1864.

aterrima BIGOT, Annales, 1886, 390.—Cal.

cubensis BIGOT, Annales, 390.—Cuba.

cylindrica FABRICIUS, Ent. Syst., IV, 336 (*Musca*); Syst. Antl., 263 (*Calobata*).—Europe.

FALLÉN, Orthalides, 21 (*Sepsis nitidula*).

MEIGEN, Syst. Besch., v, 290 (*Sepsis*).

DESVOIDY, Myodaires, 744 (*putris*).

MACQUART, Hist. Nat. Dipt., II, 480.

ZETTERSTEDT, Dipt. Scand., VI, 2301 (*Sepsis*).

VAN DER WULP, Tijdschr. v. Ent., XXVI, 51, oc. in N. A.—Quebec.

N. J.—Smith Cat.; Montreal—Chagnon.

fulvicoxalis BIGOT, Annales, 1886, 390.—Cal.; Cuba?

minuta WIEDEMANN, Auss. Zw., II, 468 (*Sepsis*).—N. Y.

HOWARD, Proc. Wash. Acad. Sci., II, 588, fig. and habits; reared from human excrement.—Va., D. C. N. J.—Smith Cat.
cæruleiformis MACQUART, Dipt. Exot., Suppl. II, 2, 94.—Philadelphia.
obscuripennis BIGOT, Annales, 1886, 392.—Cal.

MYCETAULUS.

LOEW, Dipt. Beitr., I, 37, 1845.
 SCHINER, Fauna Austr., II, 187, 1864.
longipennis LOEW, Cent., IX, 100.—Huds. Bay Terr.

PIOPHILA.

FALLÉN, Heteromyzides, 8, 1820.
 MEIGEN, Syst. Besch., v, 394, 1826.
 SCHINER, Fauna Austr., II, 184, 1864.
affinis MEIGEN, Syst. Besch., vi, 383.—Europe.
 ZETTERSTEDT, Dipt. Scand., vi, 2511.
 SCHINER, Fauna Austr., II, 186.
 STÆGER, Grœnl. Antl., 368 (*casei* LINN.), oc. in Greenland.
 SCHIÖDTE, Tillag til Rink: Greenland, etc., 69 (id.), same.
 HOLMGREN, Ins. Nordgrœnl., 104 (*pilosa* STÆG.).—Greenland.
 LUNDBECK, Dipt. Grœnl., II, 299, fig.—Greenland.
casei LINNÉ, Fauna Suecica, 456, No. 1850 (*Musca putris*, var. *casei*).—Europe;
 "habitat in caseo, cujus larva caseum consumit."
 FABRICIUS, Spec. Ins., II, 333 (*Musca atrata*).
 MEIGEN, Syst. Besch., v, 395, pl. LIV, f. 4.
 ZETTERSTEDT, Dipt. Scand., vi, 2510.
 DUFOUR, Ann. de Science Nat., 1844, 369, pl. XVI, f. 7 (*pectasionis*).
 [Schiner.]
 SCHINER, Fauna Austr., II, 186.
 LOEW, in Silliman's Jour., oc. in N. A. (*casei* and *pectasionis*).
 KELLOGG, Kans. Acad. Sci., XIII, 112, damaging smoked meats at Kansas City; Insect Life, v, 116, same.
 MURTFELDT, Ins. Life, v, 135, similar habit; vi, 170, article on habits—affecting smoked pork.
 RILEY and HOWARD, Ins. Life, vi, 208, notes.
 HOWARD and MARLATT, Bull. 4, n. ser., Div. of Ent., 102, figs., biol., etc.
 LINTNER, 12th N. Y. Report, 229–234, figs.; life history.
 MOTTER, Jour. N. Y. Ent. Soc., vi, 223, oc. in human graves.
 HOWARD, Proc. Wash. Acad. Sci., II, 588, pl. XXX, all stages figured.
 Cosmopolitan: reported from Alaska to New Mexico, etc.
concolor THOMSON, Eugenes Resa, 596.—Cal.
nigerrima LUNDBECK, Dipt. Grœnl., II, 301, fig.—Greenland.
nigriceps MEIGEN, Syst. Besch., v, 397.—Europe.
 ZETTERSTEDT, Dipt. Scand., vi, 2516.
 SCHINER, Fauna Austr., II, 185.
 LOEW, in Silliman's Jour., oc. in N. A.
nigriceps MACQUART, Suppl. iv, 303, pl. XXVIII, f. 6.—N. A.
nitida VAN DER WULP, Tijdschr. v. Ent., x, 160, pl. v, f. 16–18.—Wis.
pilosa STÆGER, Grœnl. Antl., 368.—Greenland.
 ZETTERSTEDT, Dipt. Scand., vi, 2514.—N. Europe.
 SCHIÖDTE, Tillag til Rink: Greenland, etc., 69, oc. in Greenland.
 LUNDBECK, Dipt. Grœnl., II, 301, oc. in Greenland.

ENICOPUS.

WALKER, Ent. Mag., i, 253, 1833.

? *fuscus* BIGOT, Annales, 1886, 387.—Mex. Query by Bigot.

PSILIDÆ.

VAN DER WULP, Biologia, Dipt., ii, 360, 1897, def. and table of genera.

LOXOCERA.

MEIGEN, Illig. Mag., ii, 275, 1803; Syst. Besch., v, 362, 1826.

ZETTERSTEDT, Dipt. Scand., vi, 2382, 1847.

SCHINER, Fauna Austr., ii, 196, 1864.

LOEW, Schles. Ent. Zeit., 1857, European species.

BIGOT, Annales, 1887, 17—19, table of all species.

collaris LOEW, Cent., ix, 97.—D. C.

cylindrica SAY, Jour. Acad. Sci. Phil., iii, 98; Compl. Works, ii, 84.—Pa.

WIEDEMANN, Auss. Zw., ii, 528.

? LOEW, Cent., viii, 65 (*pleuritica*).—Conn., N. Y. [J. M. A., in spite of Loew's note to the contrary.]

N. J.—Smith Cat.; Montreal—Chagnon; White Mts., N. H.—Slosson.

The two last mentioned as *pleuritica*.

fallax LOEW, Cent., ix, 98.—Canada.

Axton, N. Y.—M. and H.

fumipennis COQUILLETT, Proc. U. S. N. M., xxiii, 617.—Baldwin, Kans.; Texas.

pectoralis LOEW, Cent., viii, 64.—D. C.

N. J.—Smith Cat.; White Mts., N. H.—Slosson.

quadrilinea WALKER, Trans. Ent. Soc., n. ser., v, 329.—U. S.

CHYLIZA.

FALLÉN, Opomyzides, 6, 1820.

MEIGEN, Syst. Besch., v, 367, 1826.

SCHINER, Fauna Austr., ii, 199, 1864.

apicalis LOEW, Wien. Ent. Monatsch., iv, 82; Cent., viii, 72.—D. C.

GIGLIO-TOS, Ditt. del Mess., iv, 64, oc. in Tuxpango, Mex.

N. J.—Smith Cat.

euthea GIGLIO-TOS, Boll. R. Univ. Torino, viii, No. 158, 1893; Ditt. del Mess., iv, 64.—Tuxpango, Mex.

metallica WALKER, List, iv, 1045.—Martin Falls, Canada.

nigroviridis WALKER, Trans. Ent. Soc., n. ser., v, 330.—U. S.

notata LOEW, Cent., ix, 99.—D. C.

N. J.—Smith Cat.; White Mts., N. H.—Slosson.

varipes VAN DER WULP, Biologia, Dipt., ii, 361.—Guerrero and Tabasco, Mex.

PSILA.

MEIGEN, Illig. Mag., ii, 278, 1803; Syst. Besch., v, 355, 1826.

SCHINER, Fauna Austr., ii, 202, 1864.

bicolor MEIGEN, Syst. Besch., v, 358.—Europe.

ZETTERSTEDT, Dipt. Scand., vi, 2394.

SCHINER, Fauna Austr., ii, 204.

LOEW, Silliman's Journal, oc. in N. A.—Sitka and L. Winnipeg.

White Mts., N. H.—Slosson.

bivittata LOEW, Cent., VIII, 67.—Conn. Quebec—O. S.; N. J.—Smith Cat.
collaris LOEW, Cent., VIII, 68.—Conn.

N. J.—Smith Cat.; White Mts., N. H.—Slosson.

dimidiata LOEW, Cent., VIII, 69.—Red R. of the North.

exigua VAN DER WULP, Biologia, Dipt., II, 361.—Guerrero, Mex.

frontalis COQUILLET, Proc. U. S. N. M., XXIII, 617.—Franconia, N. H.

lateralis LOEW, Wien. Ent. Monatsch., IV, 81; Cent., VIII, 66.—D. C.

N. J.—Smith Cat.

levis LOEW, Cent., VIII, 71.—White Mts., N. H.

COQUILLET, Proc. Wash. Acad. Sci., II, 459, oc. in Alaska, several places.

rosæ FABRICIUS, Ent. Syst., IV, 356 (*Musca*); Syst. Antl., 319 (*Teplitis*).—Europe.

MEIGEN, Syst. Besch., V, 358.

ZETTERSTEDT, Dipt. Scand., VI, 2402 (*Scatophaga*).

MACQUART, Hist. Nat. Dipt., II, 421 (*Psilomyia*).

SCHINER, Fauna Austr., II, 206.

FLETCHER, Rept. Ent. and Bot., Canada Dept. Agric., 1897, 196–198, oc. in Canada; biology; larva burrows in carrots; op. cit., 1898, 193, habits, distribution, etc.; op. cit., 1899, 161, notes on damage; Trans. Roy. Soc. Can., 2d ser., V, 213, figs. and notes.—Quebec and New Brunswick. Called the Carrot Rust Fly.

CHITTENDEN, Bull. 33, n. ser., Div. of Ent., 26, fig., habits, oc.—N. Y.

FELT, 18th N. Y. Rept., 1902, 99, biol., bibliog., figs.—N. Y.

sternalis LOEW, Cent., VIII, 70.—Middle States.

MEGAMERINA.

RONDANI, Dipt. Ital. Prod., IV, 10, 1861, change of name.

MEIGEN, Syst. Besch., V, 370, 1826 (*Lissa*, preoc.).

SCHINER, Fauna Austr., II, 189, 1864 (*Lissa*).

carbonaria WALKER, List, IV, 1047 (*Lissa*).—Martin Falls, Canada.

carbonaria WALKER, see *Cordylura*.

fulvida BIGOT, Annales, 1886, 384.—Mex.

DIOPSIDÆ.

BIGOT, Annales, 1874, 107, gives a list of the published species, showing that only one belongs to the western continent, while some fifty belong to the tropical parts of the old world. He also gives a table of genera of the world, Annales, 1880, 90–94.

SPHYRACEPHALA.

SAY, American Entomology, pl. LII, 1828; Compl. Works, I, 116, pl. LII.

brevicornis SAY, Jour. Acad. Sci. Phil., I, 23; Compl. Works, I, 116, pl. LII.—Pa., Mo.

WIEDEMANN, Auss. Zw., II, 563 (*Diopsis*); Achias, etc., pl. II, f. 3 (id.).

GRAY, in Griffith's Animal Kingdom, Ins., 774, pl. LXI, f. 2.

MACQUART, Hist. Nat. Dipt., II, 486 (*Diopsis*).

WESTWOOD, Trans. Linn. Soc., XVII, 311, pl. IX, f. 20.

FITCH, 1st N. Y. Rept., 773 (*brevicornis* and *subbifasciata*), notes; collected on skunk cabbage, as Say also did.—N. Y.

LOEW, Zeitsch. f. Ges. Naturwissenschaft, XLII, 101.

KEEN, Canad. Ent., XV, 200, oc. in Philadelphia.

C. O. HOUGHTON, Ent. News, XIII, 160, note on habits of adult; oc. at Ithaca, N. Y. N. J.—Smith Cat.; Montreal—Chagnon.

Note.—In midsummer of 1901 I found this species by hundreds on foliage in one of the shady glens adjoining the campus of Cornell University, Ithaca, N. Y. There is nothing to show that the larva has anything to do with the skunk cabbage.

EPHYDRIDÆ.

BECKER, Berl. Ent. Zeitsch., XLI, 91-276, 1896, has given an excellent monograph of the European species.

DICHÆTA.

MEIGEN, Syst. Besch., VI, 61, 1830.

LOEW, Mon. N. A. Dipt., I, 132, 1862.

SCHINER, Fauna Austr., II, 235, 1864.

BECKER, Berl. Ent. Zeitsch., XLI, 102, 1896.

brevicauda LOEW, Neue Beitr., VII, 5; Mon. N. A. Dipt., I, 133.—Middle States.

SCHINER, Fauna Austr., II, 236.—Europe.

BECKER, Berl. Ent. Zeitsch., XLI, 103.—Europe.

N. J.—Smith Cat.; St. Augustine, Fla.—Johnson.

caudata FALLÉN, Hydromyzides, 8 (*Notiphila*).—Europe.

MEIGEN, Syst. Besch., VI, 62.

SCHINER, Fauna Austr., II, 236.

LOEW, Mon. N. A. Dipt., I, 133.—Mass., N. H.

BECKER, Berl. Ent. Zeitsch., XLI, 103.

White Mts., N. H.—Slosson.

furcata COQUILLETT, Jour. N. Y. Ent. Soc., X, 182.—Biscayne Bay and L. Worth, Fla.

NOTIPHILA.

FALLÉN, Hydromyzides, 7, 1823.

SCHINER, Fauna Austr., II, 236, 1864.

BECKER, Berl. Ent. Zeitsch., XLI, 105, 1896.

avia LOEW, Zeitsch. f. Ges. Naturwiss., 1878, 193.—Hudson Bay Terr.

bella LOEW, Mon. N. A. Dipt., I, 135.—Middle States.

bellula WILLISTON, Trans. Ent. Soc. Lond., 1896, 390.—St. Vincent, W. I.; reported by Williston from Brazil later.

carinata LOEW, Mon. N. A. Dipt., I, 137.—Middle States. N. J.—Smith Cat.

decorata WILLISTON, Trans. Ent. Soc. Lond., 1896, 389.—St. Vincent, W. I.

decoris WILLISTON, Dipt. of Death Valley Exped., 258.—Panamint Valley, Cal.

erythroceræ LOEW, Zeitsch. f. Ges. Naturwiss., 1878, 194.—Cuba.

Porto Rico—Roeder.

macrochætæ LOEW, Zeitsch. f. Ges. Naturwiss., 1878, 192.—Texas.

producta WALKER, List, IV, 1099.—Martin Falls, Canada.

pulchrifrons LOEW, Cent., X, 84.—Texas.

quadrisetosa THOMSON, Eugen. Resa, 594.—Cal.

repleta WALKER, see *Scatella*.

scalaris LOEW, Mon. N. A. Dipt., I, 134.—Middle States. N. J.—Smith Cat.

solita WALKER, Dipt. Saund., 406.—U. S.

transversa WALKER, Dipt. Saund., 407.—U. S.

unicolor LOEW, Mon. N. A. Dipt., I, 137.—Middle States.

virgata COQUILLETT, Proc. U. S. N. M., XXII, 259.—Porto Rico.

vittata LOEW, Mon. N. A. Dipt., I, 134.—Middle States. N. J.—Smith Cat.



PARALIMNA.

LOEW, Mon. N. A. Dipt., 1, 138, 1862.

OSTEN SACKEN, Cat., 201, note.

BECKER, Berl. Ent. Zeitsch., xli, 114, 1896.

appendiculata LOEW, Mon. N. A. Dipt., 1, 138.—Middle States.

N. J.—Smith Cat.; St. Augustine, Fla.—Johnson.

decipiens LOEW, Zeitsch. f. Ges. Naturwiss., 1878, 196.—Texas.

COQUILLET, Proc. U. S. N. M., xxii, 259, oc. in Porto Rico, Ga., and Fla.

multipunctata WILLISTON, Trans. Ent. Soc. Lond., 1896, 290; Kans. Univ. Quart., vi, 5, oc. in Brazil.—St. Vincent, W. I.; Williston suggests that this, with *secunda* SCHINER from S. A., and *appendiculata*, may all be one species.

nuda COQUILLET, Jour. N. Y. Ent. Soc., x, 182.—Frontera in Tabasco, Mex.

obscura WILLISTON, Trans. Ent. Soc. Lond., 1896, 391.—St. Vincent, W. I. Porto Rico—Coquillett.

PTILOMYIA.

COQUILLET, Proc. U. S. N. M., xxii, 261, 1900.

enigma COQUILLET, loc. cit.—Porto Rico.

ALLOTRICHOMA.

BECKER, Berl. Ent. Zeitsch., xli, 1896, 121.

WILLISTON, Kans. Univ. Quart., vi, 4, 1897, note.

abdominalis WILLISTON, Trans. Ent. Soc. Lond., 1896, 398 (*Heccamede*); Kans. Univ. Quart., vi, 4, gen. ref.—St. Vincent, W. I.; Brazil.

COQUILLET, Proc. U. S. N. M., xxii, 260, oc. in Porto Rico.

GASTROPS.

WILLISTON, Kans. Univ. Quart., vi, 3, 1897.

nebulosus COQUILLET, Canad. Ent., xxxii, 34.—N. C., Ga.

niger WILLISTON, Kans. Univ. Quart., vi, 3.—Grenada, W. I., and Rio Janeiro.

DISCOMYZA.

MEIGEN, Syst. Besch., vi, 76, 1830.

SCHINER, Fauna Austr., ii, 240, 1864.

BECKER, Berl. Ent. Zeitsch., xli, 128, 1896.

balioptera LOEW, Mon. N. A. Dipt., 1, 140.—Cuba.

dubia WILLISTON, Trans. Ent. Soc. Lond., 1896, 392, pl. xiii, f. 138.—St. Vincent, W. I.

PSILOPA.

FALLÉN, Hydromyzides, 6, 1820.

SCHINER, Fauna Austr., ii, 241, 1864 (*Ephygrobia*).

BECKER, Berl. Ent. Zeitsch., xli, 135, 1896, adopts and defends *Ephygrobia*.

WILLISTON, Trans. Ent. Soc. Lond., 1896, 392, table of St. Vincent species.

aciculata LOEW, Mon. N. A. Dipt., 1, 142.—Cuba.

WILLISTON, Trans. Ent. Soc. Lond., 1896, 394, pl. xiii, f. 140; Kans. Univ. Quart., vi, 4, oc.—St. Vincent, W. I.; Rio Janeiro.

COQUILLET, Proc. U. S. N. M., xxii, 260, reports from Porto Rico, Ga., and La.

æneonigra LOEW, Zeitsch. f. Ges. Naturwiss., 1878, 196.—Texas.

atra LOEW, Mon. N. A. Dipt., 1, 142.—Middle States.

- atrimanus** LOEW, Zeitsch. f. Ges. Naturwiss., 1878, 197.—D. C., Texas.
N. J.—Smith Cat.
- cæruleiventris** LOEW, Mon. N. A. Dipt., 1, 144.—Cuba.
- desmata** WILLISTON, Trans. Ent. Soc. Lond., 1896, 395.—St. Vincent, W. I.
- flavida** COQUILLETT, Canad. Ent., xxxii, 33.—New Bedford, Mass.
- mellipes** COQUILLETT, Proc. U. S. N. M., xxii, 260.—Porto Rico.
- nigra** WILLISTON, Trans. Ent. Soc. Lond., 1896, 393, pl. xiii, f. 139.—St. Vincent, W. I.
- nigrimanus** WILLISTON, Trans. Ent. Soc. Lond., 1896, 393; Kans. Univ. Quart., vi, 4, oc.—St. Vincent, W. I.; Rio Janeiro.
- nigropunctum** WILLISTON, Trans. Ent. Soc. Lond., 1896, 393.—St. Vincent, W. I.
- nitidula** FALLÉN, K. Vetenskap. Akad. Handl., 1813, 252; Hydromyzides, 7, 1823.—Europe.
BECKER, Berl. Ent. Zeitsch., xli, 143 (*Ephygrobia*).
WALKER, List, iv, 1098 (*Notiphila*), oc. in N. A.—Martin Falls, Canada.
- nobilis** LOEW, Cent., ii, 92.—D. C.
- petrolei** COQUILLETT, Canad. Ent., xxxi, 1899, 8.—S. Cal.; larvæ live in crude petroleum!
HOWARD, Scientific American, Feb. 4, 1899, vol. lxxx, p. 75; life hist. and figs. of different stages—same habits.
HOWARD and COQUILLETT, Entomologist, 1899, 235, same.
- pulchripes** LOEW, Zeitsch. f. Ges. Naturwiss., 1878, 197.—Texas.
- scoriacea** LOEW, Mon. N. A. Dipt., 1, 142.—N. Y. N. J.—Smith Cat.
- similis** COQUILLETT, Canad. Ent., xxxii, 33.—Fla., La.
- umbrosa** LOEW, Mon. N. A. Dipt., 1, 143.—Cuba.
- varipes** COQUILLETT, Canad. Ent., xxxii, 33.—Vancouver Id., Br. Col.

ILYTHEA.

- HALIDAY, Ann. Nat. Hist., iii, 408, 1839.
- SCHINER, Fauna Austr., ii, 262, 1864.
- BECKER, Berl. Ent. Zeitsch., xli, 132, 1896.
- flavipes** WILLISTON, Trans. Ent. Soc. Lond., 1896, 403.—St. Vincent, W. I.; gen. ref. with a doubt. Also Kans. Univ. Quart., vi, 4, oc. in Rio Janeiro; confirms gen. ref.
Porto Rico—Coquillett.
- ? **oscitans** WALKER, Trans. Ent. Soc., n. ser., iv, 233 (*Ephydra*).—U. S.
OSTEN SACKEN, Cat., 262, note 319, says there is an earlier *Eph. oscitans* by Walker himself; refers with a doubt to *Ilythea spilota* CURT.
COQUILLETT, Proc. U. S. N. M., xxii, 260, recognizes as a distinct and valid species.—Porto Rico. See *Ephydra* and *Scatella*.
- spilota** CURTIS, Brit. Ent., 413.—Europe.
WALKER, Ins. Brit., ii, 264.
STENHAMMAR, Mon. Ephyd., 186 (*notata*).
LOEW, Neue Beitr., vii, 37; Silliman's Jour., oc. in N. A.
SCHINER, Fauna Austr., ii, 263.
BECKER, Berl. Ent. Zeitsch., xli, 133, 1896.

ATHYROGLOSSA.

- LOEW, Neue Beitr., vii, 12, 1860; Mon. N. A. Dipt., 1, 132, 1862.
- SCHINER, Fauna Austr., ii, 244, 1864.
- BECKER, Berl. Ent. Zeitsch., xli, 133, 1896.
- glabrata** MEIGEN, Syst. Besch., vi, 69 (*Notiphila*).—Europe.

LOEW, Neue Beitr., vii, 12.

SCHINER, Fauna Austr., ii, 245.

WALKER, Ins. Brit., ii, 254.

BECKER, Berl. Ent. Zeitsch., xli, 134, 1896.

HOUGH, in litt., reports it from Wash.

glaphyropus LOEW, Zeitsch. f. Ges. Naturwiss., 1878, 198.—Texas.

nitida WILLISTON, Trans. Ent. Soc. Lond., 1896, 397, pl. xiii, f. 142.—St. Vincent, W. I.

Porto Rico—Coquillett.

DISCOCERINA.

MACQUART, Hist. Nat. Dipt., ii, 527, 1835.

STENHAMMAR, Mon. Ephyd., 251, 1844 (*Clasiopa*).

LOEW, Mon. N. A. Dipt., i, 145, 1862.

SCHINER, Fauna Austr., ii, 243 (*Clasiopa*).

BECKER, Berl. Ent. Zeitsch., xli, 144, 1896 (*Clasiopa*).

WILLISTON, Trans. Ent. Soc. Lond., 1896, 395, table of St. Vincent species.

facialis WILLISTON, Trans. Ent. Soc. Lond., 1896, 396, pl. xiii, f. 141.—St. Vincent, W. I.

incisa COQUILLETT, Jour. N. Y. Ent. Soc., x, 182.—Porto Rico.

lacteipennis LOEW, Mon. N. A. Dipt., i, 145.—D. C. N. J.—Smith Cat.

leucoprocta LOEW, Berl. Ent. Zeitsch., 1861, 255; Mon. N. A. Dipt., i, 148.—Md.

? WILLISTON, Trans. Ent. Soc. Lond., 1896, 395, doubtfully recognized from St. Vincent, W. I. Porto Rico—Coquillett.

nana WILLISTON, Trans. Ent. Soc. Lond., 1896, 396.—St. Vincent, W. I.

obscura WILLISTON, Trans. Ent. Soc. Lond., 1896, 397.—St. Vincent, W. I.

orbitalis LOEW, Cent., i, 91; Mon. N. A. Dipt., i, 147.—D. C.

BECKER, Mittheilungen Zool. Mus. Berl., ii, 160, 1903, oc. in Egypt (*Clasiopa*).

parva LOEW, Mon. N. A. Dipt., i, 146.—D. C.

COQUILLETT, Proc. U. S. N. M., xxii, 261, oc. in Porto Rico.

HOWARD, Proc. Wash. Acad. Sci., ii, 592, note.

simplex LOEW, Cent., i, 92; Mon. N. A. Dipt., i, 147.—Md.

PAREPHYDRA.

COQUILLETT, Jour. N. Y. Ent. Soc., x, 183, 1902.

humilis COQUILLETT, loc. cit.—Hot Spr., Yavapai Co., Ariz.

PARATISSA.

COQUILLETT, Canad. Ent., xxxii, 36, 1900.

pollinosa WILLISTON, Trans. Ent. Soc. Lond., 1896, 414 (*Drosophila*).—St. Vincent, W. I.

COQUILLETT, Canad. Ent., xxxii, 36, gen. ref.—Biscayne Bay, Fla.

HYDRELLIA.

DESVOIDY, Myodaires, 790, 1830.

LOEW, Mon. N. A. Dipt., i, 150, 1862.

SCHINER, Fauna Austr., ii, 246, 1864.

BECKER, Berl. Ent. Zeitsch., xli, 167, 1896.

conformis LOEW, Cent., viii, 73.—Newport, R. I.

formosa LOEW, Cent., i, 94; Mon. N. A. Dipt., i, 154.—Pa.

- HOWARD, Proc. Wash. Acad. Sci., II, 593, oc. and note.—D. C.
gilvipes COQUILLET, Proc. U. S. N. M., XXII, 261.—Porto Rico.
hypoleuca LOEW, Mon. N. A. Dipt., I, 151.—Middle States.
ischiaca LOEW, Mon. N. A. Dipt., I, 150.—Middle States.
obscuripes LOEW, Mon. N. A. Dipt., I, 152.—Middle States.
 White Mts., N. H.—Slosson.
parva WILLISTON, Trans. Ent. Soc. Lond., 1896, 399, pl. XIII, f. 143.—St. Vincent, W. I.
pulchra WILLISTON, Trans. Ent. Soc. Lond., 1896, 400, pl. XIII, f. 144.—St. Vincent, W. I.
scapularis LOEW, Mon. N. A. Dipt., I, 153.—Middle States.
 COQUILLET, Proc. Wash. Acad. Sci., II, 461, oc. in Br. Col., Alaska, Cal., and Ill. N. J.—Smith Cat.
valida LOEW, Mon. N. A. Dipt., I, 153.—Middle States.

NOSTIMA.

- COQUILLET, Canad. Ent., XXXII, 35, 1900.
slossonæ COQUILLET, loc. cit.—Biscayne Bay, Fla.

PHILYGRIA.

- STENHAMMAR, Mon. Ephyd., 238, 1844.
 LOEW, Mon. N. A. Dipt., I, 155, 1862.
 SCHINER, Fauna Austr., II, 251, 1864.
 BECKER, Berl. Ent. Zeitsch., XLI, 186, 1896.
 ? DESVOIDY, Myodaires, 1830—*Hydrina*.
debilis LOEW, Cent., I, 96; Mon. N. A. Dipt., I, 157.—Pa.
 White Mts., N. H.—Slosson (*Hydrina*).
fuscicornis LOEW, Mon. N. A. Dipt., I, 155.—Middle States.
 White Mts., N. H.—Slosson (*Hydrina*).
nitida WILLISTON, Trans. Ent. Soc. Lond., 1896, 400, pl. XIII, f. 145 (*Hydrina*).—St. Vincent, W. I.
nitifrons WILLISTON, Trans. Ent. Soc. Lond., 1896, 401 (*Hydrina*).—St. Vincent, W. I.
opposita LOEW, Cent., I, 95; Mon. N. A. Dipt., I, 156.—Pa.; D. C.
 Quebec—O. S.; White Mts., N. H.—Slosson (*Hydrina*).
vittipennis ZETTERSTEDT, Ins. Lapp., 716 (*Notiphila*); Dipt. Scand., v, 1924 (id.).—Europe.
 STENHAMMAR, Mon. Ephyd., 250.
 STÆGER, Grœnl. Antl., 369 (*Notiphila*), oc. in Greenland.
 BECKER, Berl. Ent. Zeitsch., XLI, 1896, 193.
 ? LUNDBECK, Dipt. Grœnl., II, 302, doubtfully recognized from Greenland.

HYADINA.

- HALIDAY, Annals of Nat. Hist., III, 406, 1839.
 SCHINER, Fauna Austr., II, 254, 1864.
 BECKER, Berl. Ent. Zeitsch., XLI, 193, 1896.
albovenosa COQUILLET, Canad. Ent., XXXII, 34.—Ga., La.
gravida LOEW, Cent., IV, 98.—Sitka.

OCHTHERA.

- LATREILLE, Hist. Nat. Crust. et Ins., II, 462, 1802; XIV, 391, 1804.
 LOEW, Mon. N. A. Dipt., I, 159, 1862.

- SCHINER, Fauna Austr., II, 256, 1864.
 BECKER, Berl. Ent. Zeitsch., XLI, 204, 1896.
 WHEELER, Ent. News, VII, 123, 1896, table of species and notes.
cuprilineata WILLISTON, Trans. Ent. Soc. Lond., 1896, 402, pl. XIII, f. 148.—St. Vincent, W. I.
 WHEELER, Ent. News, VII, 123, pt. desc.
exsculpta LOEW, Mon. N. A. Dipt., I, 160.—Cuba.
 WILLISTON, Trans. Amer. Ent. Soc., XIII, 307, oc. in So. States. Jamaica and Fla.—Johnson.
lauta WHEELER, Ent. News, VII, 121.—Wis.
mantis DEGEER, Mém. Hist. Ins., VI, 143, pl. VIII, f. 15 (*Musca*).—Europe.
 FABRICIUS, Ent. Syst., IV, 334 (*Musca manicata*); Syst. Antl., 323 (*Te-phritis* id.).
 FALLÉN, Hydromyzides, 2 (*manicata*).
 LATREILLE, Gen. Ins., IV, 348, pl. XV, f. 10; Consid. Générales, 444.
 MEIGEN, Syst. Besch., VI, 78.
 SCHINER, Fauna Austr., II, 256.
 BECKER, Berl. Ent. Zeitsch., XLI, 205, pl. V, f. 3; pl. VI, f. 20.
 LOEW, Mon. N. A. Dipt., I, 161.—Middle States.
 WHEELER, Ent. News, VII, 123, oc.—Conn. to Cal., common.
 GIGLIO-TOS, Ditt. del Mess., IV, 66, bibliog. and oc.—Tuxpango, Mex. White Mts., N. H.—Slosson.
rapax LOEW, Mon. N. A. Dipt., I, 162.—Carolina.
tuberculata LOEW, Mon. N. A. Dipt., I, 161.—Ill.
 WHEELER, Ent. News, VII, 123, oc. and pt. desc.—Wis. St. Augustine, Fla.—Johnson.

OCHTHEROIDEA.

- WILLISTON, Trans. Ent. Soc. Lond., 1896, 401.
atra WILLISTON, loc. cit., pl. XIII, f. 146.—St. Vincent, W. I.

PELINA.

- HALIDAY, Annals of Nat. Hist., III, 407, 1839.
 SCHINER, Fauna Austr., II, 255, 1864.
 BECKER, Berl. Ent. Zeitsch., XLI, 196, 1896.
truncatula LOEW, Zeitsch. f. Ges. Naturwiss., 1878, 198.—Texas.

PELOMYIA.

- WILLISTON, Dipt. of Death Val. Exped., 259, 1893.
 BECKER, Berl. Ent. Zeitsch., XLI, 274, 1896, quotes orig. desc.
occidentalis WILLISTON, loc. cit.—Monterey, Cal.
 COQUILLETT, Proc. Wash. Acad. Sci., II, 461, oc. at Saldovia, Alaska.

BRACHYDEUTERA.

- LOEW, Mon. N. A. Dipt., I, 162, 1862.
 BECKER, Berl. Ent. Zeitsch., XLI, 201, 1896.
argentata WALKER, Dipt. Saund., 407 (*Notiphila*).—U. S.
 LOEW, Mon. N. A. Dipt., I, 163 (*dimidiata*).—D. C., Cuba. [Lw.]
 WILLISTON, Kans. Univ. Quart., VI, 4, oc. in Brazil, Bolivia, and Paraguay.

HOWARD, Proc. Wash. Acad. Sci., II, 592, bred from a pond "strongly impregnated with horse manure."—D. C.

Charlotte Harbor, Fla.—Johnson (*dimidiata*).

PARYDRA.

STENHAMMAR, Mon. Ephyd., 144, 1844.

LOEW, Mon. N. A. Dipt., I, 164, 1862.

SCHINER, Fauna Austr., II, 257, 1864.

BECKER, Berl. Ent. Zeitsch., XLI, 208, 1896.

abbreviata LOEW, Cent., I, 97; Mon. N. A. Dipt., I, 168.—Pa.

appendiculata LOEW, Zeitsch. f. Ges. Naturwiss., 1878, 202.—Texas.

✓ *bituberculata* LOEW, Mon. N. A. Dipt., I, 165.—Middle States.

N. J.—Smith Cat.; S. D., Kans., Ida., common—J. M. A.

breviceps LOEW, Mon. N. A. Dipt., I, 167.—Middle States.

imitans LOEW, Zeitsch. f. Ges. Naturwiss., 1878, 201.—Mass.

limpidipennis LOEW, Zeitsch. f. Ges. Naturwiss., 1878, 201.—D. C.

paullula LOEW, Mon. N. A. Dipt., I, 167.—Locality omitted; U. S.—O. S.

COQUILLET, Proc. Wash. Acad. Sci., II, 462, oc. on Popof Id., Alaska.

pinguis WALKER, Dipt. Saund., 409 (*Ephydra*).—U. S.

LOEW, Zeitsch. f. Ges. Naturwiss., 1878, 199.—D. C., Texas.

N. J.—Smith Cat.

quadrītuberculata LOEW, Mon. N. A. Dipt., I, 165.—Middle States.

Ormond, Fla.—Johnson.

unituberculata LOEW, Zeitsch. f. Ges. Naturwiss., 1878, 200.—D. C.

varia LOEW, Cent., IV, 100.—Sitka, Alaska.

EPHYDRA.

FALLÉN, Hydromyzides, 3, 1820.

LOEW, Mon. N. A. Dipt., I, 169, 1862.

SCHINER, Fauna Austr., II, 260, 1864.

PACKARD, Proc. Essex Inst., VI, 1869, and Amer. Jour. of Arts and Sciences, 1st ser., I, 1872, discusses in both the species of *Ephydra* which in the larval stage inhabit salt or alkaline waters.

WILLISTON, Trans. Conn. Acad., VI, July, 1883, on "Dipterous Larvæ in Western Alkaline Lakes, and their Use as Human Food."

SCHWARZ, Canad. Ent., XXIII, 236, on larvæ in Great Salt Lake.

BECKER, Berl. Ent. Zeitsch., XLI, 216, 1896.

atrovirens LOEW, Mon. N. A. Dipt., I, 169.—Middle States.

austrina COQUILLET, Canad. Ent., XXXII, 36.—Georgiana, Fla.

brevis WALKER, Trans. Ent. Soc., n. ser., IV, 233.—U. S.

crassimanus LOEW, Cent., VI, 88.—Mex.

halophila PACKARD, Proc. Essex Inst., VI, 46, fig.—Ill. The name is preoccupied.

californica PACKARD, Amer. Jour. Arts and Sci., 3d ser., I, 103 (larva and pupa only).—Cal.; larva in alkaline lake.

? WILLISTON, Trans. Conn. Acad., VI, July, 1883, adult desc.; larvæ in Soda Lake, Nev., also in Mono Lake. Identity not quite certain.

gracilis PACKARD, Amer. Jour. Arts and Sci., 3d ser., I, 103, larva only.—Cal.

SCHWARZ, Canad. Ent., XXIII, 235, extended notes on the larvæ—abundant in Great Salt Lake.

hians SAY, Jour. Acad. Sci. Phil., VI, 188; Compl. Works, II, 371.—Mex.

lata WALKER, Trans. Ent. Soc., n. ser., IV, 233.—U. S.

lutea WIEDEMANN, Auss. Zw., II, 593.—W. I.

nana WALKER, Trans. Ent. Soc., n. ser., IV, 234.—U. S.

N. J.—Smith Cat.; Ormond, Fla.—Johnson.

Note.—The description is embraced in two lines, and suggests a *Psilopa obscuripes* LOEW, Cent., VII, 92.—Mass.

oscitans WALKER, Trans. Ent. Soc., n. ser., IV, 233.—U. S.

Note.—The name is preoccupied, and I should call the species unrecognized, although Mr. Coquillett believes that he has identified it from Porto Rico and Mr. Johnson reported it from N. J.; see under *Ilythca* and *Scatella*.

pilicornis COQUILLETT, Jour. N. Y. Ent. Soc., X, 184.—Biscayne Bay, Fla.

pygmaea WILLISTON, Trans. Ent. Soc. Lond., 1896, 402, pl. XIII, f. 147.—St. Vincent, W. I.

subopaca LOEW, Cent., V, 99.—Conn.

N. J.—Smith Cat.; Charlotte Harbor, Fla.—Johnson.

tarsata WILLISTON, Dipt. of Death Valley Exped., 257.—Owen's Valley, Cal.

thomae WIEDEMANN, Auss. Zw., II, 593.—St. Thomas, W. I.

SCATELLA.

DESVOIDY, Myodaires, 801, 1830.

SCHINER, Fauna Austr., II, 264, 1864.

LOEW, Mon. N. A. Dipt., I, 170, 1862.

BECKER, Berl. Ent. Zeitsch., XLI, 225, 1896.

cribrata STENHAMMAR, Mon. Ephyd., 269 (*Ephydra*).—Sweden.

ZETTERSTEDT, Dipt. Scand., V, 1835 (id.).

SCHINER, Fauna Austr., II, 265.

LUNDBECK, Dipt. Grœnl., II, 303, oc. in Greenland.

favillacea LOEW, Mon. N. A. Dipt., I, 170.—Middle States.

N. J.—Smith Cat.

lugens LOEW, Mon. N. A. Dipt., I, 171.—Middle States. Ormond, Fla.—Johnson.

mesogramma LOEW, Cent., VIII, 74.—Newport, R. I.

obscura WILLISTON, see *stagnalis*.

obsoleta LOEW, Cent., I, 98; Mon. N. A. Dipt., I, 172.—D. C.

octonotata WALKER, List, IV, 1106 (*Ephydra*).—Martin Falls, Canada.

? **oscitans** WALKER, List, IV, 1106 (*Ephydra*).—Martin Falls, Canada.

N. J.—Smith Cat. See *Ephydra* and *Ilythca*.

pentastigma THOMSON, Eugen. Resa, 591 (*Ephydra*).—Cal.

picea WALKER, List, IV, 1105.—Martin Falls, Canada.

quadrata FALLÉN, Hydromyzides, 5.—Europe.

HALIDAY, Ent. Mag., I, 176 (*Ephydra graminum*).

STENHAMMAR, Mon. Ephyd., 182.

ZETTERSTEDT, Dipt. Scand., V, 1840.

SCHINER, Fauna Austr., II, 265.

LOEW, in Silliman's Jour., oc. in N. A.

BECKER, Berl. Ent. Zeitsch., XLI, 230.

repleta WALKER, List, IV, 1099 (*Notiphila*).—Martin Falls, Canada. Gen. ref. by J. M. A.

sejuncta LOEW, Cent., iv, 99.—Sitka.

setosa COQUILLET, Proc. Wash. Acad. Sci., ii, 462.—Saldovia, Alaska.

stagnalis FALLÉN, Acta Holm., 248; Hydromyzides, 5 (*Ephydra*).—Europe.

MEIGEN, Syst. Besch., vi, 118 (id.).

STENHAMMAR, Mon. Ephyd., 178.

LOEW, Neue Beitr., vii, 42.

SCHINER, Fauna Austr., ii, 266.

STÆGER, Grœnl. Antl., oc. in Greenland.

HOLMGREN, Ins. Nordgrœnl., same.

COQUILLET, Proc. Wash. Acad. Sci., ii, 462, oc. in Alaska, N. J., Ga., Ariz.

WILLISTON, Trans. Ent. Soc., Lond., 1896, 403 (*obscura*).—St. Vincent, W. I. [Will.]

BECKER, Berl. Ent. Zeitsch., xli, 235.

HOWARD, Proc. Wash. Acad. Sci., ii, 593, oc. and note.—D. C.

LUNDBECK, Dipt. Grœnl., ii, 303, oc. in Greenland.

Hudsonian Zone, N. M.—Cockerell; White Mts., N. H.—Mrs. Slosson;

Montreal—Chagnon; N. J.—Smith Cat.

stenhammari ZETTERSTEDT, Dipt. Scand., v, 1842.—Europe.

SCHINER, Fauna Austr., ii, 266.

LOEW, in Silliman's Jour., oc. in N. A.

BECKER, Berl. Ent. Zeitsch., xli, 230.

striata WALKER, List, iv, 1107 (*Ephydra*).—Martin Falls, Canada.

triseta COQUILLET, Jour. N. Y. Ent. Soc., x, 184.—Williams, Ariz.

CÆNIA.

DESVOIDY, Myodaires, 800, 1830.

SCHINER, Fauna Austr., ii, 263, 1864.

BECKER, Berl. Ent. Zeitsch., xli, 207, 1896.

bisetosa COQUILLET, Jour. N. Y. Ent. Soc., x, 183.—Salt Lake, Utah.

spinosa LOEW, Cent., v, 100.—Mass.

N. Y.—O. S.; N. J.—Smith Cat.; St. Augustine, Fla.—Johnson.

LIPOCHÆTA.

COQUILLET, Ent. News, vii, 220, 1896.

BECKER, Berl. Ent. Zeitsch., xli, 274, quotes orig. desc.

WILLISTON, Kans. Univ. Quart., vi, 7, 1897, generic relations.

TOWNSEND, Ent. News, ix, 168, 1898, notes on generic position.

slossonæ COQUILLET, Ent. News, vii, 221, fig.—Fla.

TOWNSEND, Ent. News, ix, 168 (*texensis*).—Texas. [Will. in litt.]

N. J.—Smith Cat.

Note.—Mr. R. W. Doane found the species by thousands on the sea-beach in southern California.

OSCINIDÆ.

ELLIPONEURA.

LOEW, Cent., vii, 79, 1869.

debilis LOEW, Cent., vii, 79.—D. C.

MEROMYZA.

MEIGEN, Syst. Besch., v, 163, 1830.

SCHINER, Fauna Austr., II, 209, 1864.

americana FITCH, 1st N. Y. Rept., 299; 2d N. Y. Rept., 531.—N. Y.

RILEY, 1st Mo. Rept., 159-161, fig. 90; pl. II, f. 28; larvæ in wheat stalks.
—Mo.

LINTNER, 39th Rept. N. Y. State Ag'l Soc.; reprinted with a few changes
in 1st N. Y. Rept., 221-227; bibliog., figs., habits, etc.

FORBES, Ill. Rept., 1883, 13-29, pl. I, f. 1-8, full treatment; Rept., 1886,
35-39, additional notes on life history.

WEBSTER, Dept. Agric. Rept., 1884, 389 and 1886, 574, notes on life hist.;
Ins. Life, II, 87, notes on susceptibility of different varieties of wheat.

GARMAN, Ins. Life, III, 332, note on placing of eggs.

LUGGER, 2d Minn. Rept., 1896, 10, pl. XIV, notes on oc.—Minn.

COQUILLETT, Bull. 10, n. ser., Div. of Ent., 70, larvæ in wheat and rye
straws.—Ind., Mo., Wis.

FLETCHER, Rept. Ent. and Bot., 1898, 175, habits, figs., etc.

MARLATT, Farmers' Bull. 132, Dept. of Agric., 29-30, fig., remedies, etc.

LOCHHEAD, Bull. 116, Ontario Ag. Coll. and Ex. Sta., 7, 8, fig.

PETTIT, Bull. 186, Mich. Ex. Sta., oc. at Chatham, Northern Mich., and
notes.

WEBSTER, Bull. 42, Div. of Ent., 1903, 43-51, figs.; life history, etc. Called
the Greater Wheat Stem-Maggot.

STEDMAN, 34th Rept. Bd. of Agric. Mo., 86-94, figs., life hist., etc.

St. Augustine, Fla.—Johnson; N. J.—Smith Cat.; Hudsonian Zone, N.
M.—Cockerell; Beulah, N. M.—Skinner; Axton, N. Y.—M. and H.

Note.—The preceding has also been called the Wheat Bulb-worm.

CHLOROPS.

MEIGEN, Illig. Mag., II, 278, 1803; Syst. Besch., VI, 138, 1830.

SCHINER, Fauna Austr., II, 210, 1864.

LOEW, Zeitsch. f. Ent. zu Breslau, XX, 3-94, 1866, divided into subgenera
and monographically considered. I have separated the subgenera below
as far as practicable; but under the subgenus *Chlorops* are doubtless
some that only belong to the genus.

RILEY and HOWARD, Ins. Life, I, 86, early accounts of injury to wheat.

WEBSTER, Ins. Life, I, 373, notes on, affecting stems of grasses.

Subgenus Centor.

procera LOEW, Cent., x, 92.—Conn.

N. J.—Smith Cat.; White Mts., N. H.—Slosson.

Subgenus Anthracophaga.

eucera LOEW, Cent., III, 85.—D. C. N. J.—Smith Cat.

maculosa LOEW, Cent., x, 99.—Texas.

sanguinolenta LOEW, Cent., III, 84.—Carolina.

Subgenus Haplegis.

fossulata LOEW, Cent., III, 82.—Cuba.

Subgenus *Diplotoxa*.

See LOEW, Cent., x, 98, 1872.

alternata LOEW, Cent., x, 97.—Texas.

confluens LOEW, Cent., x, 94.—Texas.

microcera LOEW, Cent., x, 95.—Texas.

nigricans LOEW, Cent., x, 98.—Texas.

pulchripes LOEW, Cent., x, 96.—Texas.

versicolor LOEW, Cent., III, 97.—D. C. U. S. and Canada—O. S.

N. J.—Smith Cat.; White Mts., N. H.—Slosson.

gundlachi LOEW, Cent., x, 93.—Cuba.

Subgenus *Chlorops*.

Inclusive of *Chloropisca* and a few species that have not been assigned to any subgenus; notes on some of these are given by Loew in O. S. Cat., p. 209.

abdominalis COQUILLETT, Proc. Acad. Nat. Sci. Phil., 1895, 318.—Charlotte Harbor, Fla.

albifacies ADAMS, Kans. Univ. Sci. Bull., II, 43 (*albifascies*).—Atherton, Mo.

antennalis FITCH, 2d N. Y. Rept., 532.—N. Y.

annulata WALKER, List, IV, 1119.—Martin Falls, Canada.

appropinqua ADAMS, Kans. Univ. Sci. Bull., II, 39.—Kans., Wyo. and Col.

aristalis COQUILLETT, Jour. N. Y. Ent. Soc., VI, 46.—N. C., Ga.

assimilis MACQUART, Dipt. Exot., Suppl. IV, 2, 306, pl. XXVIII, f. 9.—N. A.

WALKER, List, IV, 1120 (*bistriatus*).—Martin Falls, Canada.

FITCH, 1st N. Y. Rept., 299 (*Siphonella obesa*).—N. Y.

LOEW, Cent., III, 87 (*trivialis*).—D. C.

GIGLIO-TOS, Ditt. del Mess., IV, 65, oc. at Puebla, Mex.

COQUILLETT, Jour. N. Y. Ent. Soc., VI, 47, above synonymy; Bull. 10, n. ser., Div. of Ent., records larvæ among roots of *Poa* and in sugar-beet leaves; also in earth about roots of horse-radish.—Cal., D. C.

CHITTENDEN, Bull. 17, n. ser., Div. Ent., 86, larvæ affecting roots of millet. N. J.—Smith Cat.; Montreal—Chagnon; St. Augustine, Fla.—Johnson;

White Mts., N. H.—Slosson; Beulah, N. M.—Skinner.

atra MACQUART, Dipt. Exot., Suppl. IV, 2, 307, pl. XXVIII, f. 12.—N. A.

bilineata ADAMS, Kans. Univ. Sci. Bull., II, 40.—North Park, Col.

cinereipennis ADAMS, Kans. Univ. Sci. Bull., II, 40 (*cinerapennis*).—Riley Co., Kans.

crocota LOEW, Cent., III, 89.—Pa. N. J.—Smith Cat.

graminea COQUILLETT, Jour. N. Y. Ent. Soc., VI, 47; Bull. 10, n. ser., Div. of Ent., 71, larvæ in grass.—Lancaster, Cal.

grata LOEW, Cent., III, 92 (*Chloropisca*).—Pa.

N. J.—Smith Cat.; Montreal—Chagnon; White Mts., N. H.—Slosson; St. Augustine, Fla.—Johnson.

halteralis ADAMS, Kans. Univ. Sci. Bull., II, 41.—Ariz.

ingrata WILLISTON, Bull. Ohio Expt. Sta., Tech. ser., I, No. 3, p. 156.—Ohio; larvæ in gall on *Muhlenbergia mexicana*.

COQUILLETT, Bull. 10, n. ser., Div. Ent., 71, larvæ in gall on *Muhlenbergia*.—Ind.

liturata ADAMS, Kans. Univ. Sci. Bull., II, 41.—Lusk, Wyo.

melanocera LOEW, Cent., III, 91.—D. C. N. J.—Smith Cat.

mella LOEW, Cent., x, 100.—Texas.

obscuricornis LOEW, Cent., III, 90.—D. C.

N. J.—Smith Cat.; Montreal—Chagnon.

palpalis ADAMS, Kans. Univ. Sci. Bull., 11, 42.—Atherton, Mo.

parva ADAMS, Kans. Univ. Sci. Bull., 11, 42.—Douglass Co., Kans.

perflava WALKER, List, IV, 1120.—Martin Falls, Canada.

producta LOEW, Cent., III, 96.—Sitka.

COQUILLET, Proc. Wash. Acad. Sci., 11, 463, recognized from Sitka.

prolifca OSTEN SACKEN, see *variceps*.

proxima SAY, Jour. Acad. Sci. Phil., VI, 187; Compl. Works, 11, 370.—Ind.

COMSTOCK, Rept. Dept. Agric., 1879, 257, life hist.; larvæ between blades of wheat stalk.

COQUILLET, Bull. 10, n. ser., Div. of Ent., 70, 71, larvæ in stems of wheat and *Elymus* (rye grass).—Ky., Cal.

Montreal—Chagnon; White Mts., N. H.—Slosson.

pubescens LOEW, Cent., III, 88.—Fla. St. Augustine and Orlando, Fla.—Johnson.

pullipes COQUILLET, Jour. N. Y. Ent. Soc., VI, 47.—Santa Fé, N. M., and Canon City, Col.

quinquepunctata LOEW, Cent., III, 94.—Nebr.

recurva ADAMS, Kans. Univ. Sci. Bull., 11, 41.—Lusk, Wyo.

rubicunda ADAMS, Kans. Univ. Sci. Bull., 11, 43.—Lusk, Wyo.

rubida COQUILLET, Jour. N. Y. Ent. Soc., VI, 46.—Col. and Placer Co., Cal.

Hagerman, Idaho—J. M. A.

sahlbergi LOEW, Cent., III, 95.—Sitka.

Muir Inlet, Virgin Bay and Saldovia, Alaska—Coquillett.

scabra COQUILLET, Jour. N. Y. Ent. Soc., VI, 46.—Oswego, N. Y.

Saldovia, Alaska—Coquillett.

sulphurea LOEW, Cent., III, 83.—English River, Canada.

N. J.—Smith Cat.

testacea MACQUART, Dipt. Exot., Suppl. IV, 2, 306, pl. XXVIII, f. 10.—N. A.

tibialis FITCH, 1st N. Y. Rept., 300, pl. 1, f. 5.—N. Y.

trivialis LOEW, see *assimilis*.

trivittata WILLISTON, Trans. Ent. Soc. Lond., 1896, 425.—St. Vincent, W. I.

Porto Rico—Coquillett.

unicolor LOEW, Cent., III, 93.—Miss. N. J.—Smith Cat.

variceps LOEW, Cent., III, 86.—Sitka.

OSTEN SACKEN, in Lintner's 4th N. Y. Rept., 70, 71, fig. (*Chloropisca prolifica*).—N. Y.

LINTNER, *ibid.*, 67-72, occurrence of adults in large numbers (*id.*); 7th N. Y. Rept., 234-241, habit of assembling, several instances noted, new figures (*id.*).

COQUILLET, Jour. N. Y. Ent. Soc., VI, 48, syn.

N. J.—Smith Cat.; White Mts., N. H.—Slosson; Montreal—Chagnon.

versicolor LOEW, see *Diptora*.

? *vittata* WIEDEMANN, Auss. Zw., 11, 594.—W. I.

OSTEN SACKEN, Cat., 209, note; genus doubtful.

? *vulgaris* FITCH, 2d N. Y. Rept., 532, pl. 1, f. 4.—N. Y.

OSTEN SACKEN, Cat., 261, note; genus uncertain.

ECTECEPHALA.

MACQUART, Dipt. Exot., Suppl. IV, 2, 280, 1850.

albistylum MACQUART, loc. cit., pl. XXV, f. 17.—N. A.

EURINA.

MEIGEN, Syst. Besch., vi, 3, 1830.

SCHINER, Fauna Austr., ii, 220, 1864.

COQUILLETT, Jour. N. Y. Ent. Soc., vi, 45, notes; oc. in N. A.

exilis COQUILLETT, Jour. N. Y. Ent. Soc., vi, 45.—Beverly, Mass.; Col.

CERATOBARYS.

COQUILLETT, Jour. N. Y. Ent. Soc., vi, 45, 1898 (no desc.; *eulophus* designated as type).

eulophus LOEW, Cent., x, 88 (*Hippelates*).—Texas.

HIPPELATES.

LOEW, Cent., iii, 67, 1863; x, 90, 1872 (*Opetiophora*).

WILLISTON, Trans. Ent. Soc. Lond., 417, 1896, table of St. Vincent species; 418, *Siphomyia*, subgenus novum.

Note.—This is an artificial group; the cinereous species are hardly distinguishable from *Siphonella*, and the rest from *Oscinis*.

bicolor COQUILLETT, Jour. N. Y. Ent. Soc., vi, 48.—Lake Worth, Fla.

N. J.—Smith Cat.

capax COQUILLETT, Jour. N. Y. Ent. Soc., vi, 48.—N. Ill.

convexus LOEW, Cent., vi, 94.—Cuba.

COQUILLETT, Bull. 10, n. ser., Div. of Ent., 73; larvæ in burrows in sugarcane in Florida; Proc. U. S. N. M., xxii, 265, oc. in Porto Rico and Mex.

St. Augustine, Fla.—Johnson.

dorsalis LOEW, Cent., vii, 75.—Cuba.

St. Vincent, W. I.—Williston.

dorsatus WILLISTON, Trans. Ent. Soc. Lond., 1896, 419.—St. Vincent, W. I.

equalis WILLISTON, Trans. Ent. Soc. Lond., 1896, 419.—St. Vincent, W. I.

eulophus LOEW, see *Ceratobarys*.

flavipes LOEW, Cent., vii, 95.—Cuba.

? WILLISTON, Trans. Ent. Soc. Lond., 1896, 420, oc. in St. Vincent, W. I.

SCHWARZ, Ins. Life, vii, 374, "The Hippelates Plague in Florida"; fig. and habits—the adults annoy people, dogs, etc.—Fla.

COQUILLETT, Proc. U. S. N. M., xxii, 265, oc. in Porto Rico and notes; doubts the correctness of Williston's determination.

HOWARD, Proc. Wash. Acad. Sci., ii, 590, pl. xxxi, f. 1; occurs on human excrement, and perhaps carries putrefactive germs to open wounds, inducing blood poisoning. "Widely distributed in the United States."

N. J.—Smith Cat.; White Mts., N. H.—Slosson.

Note.—I think this is the same as *Oscinis pallipes* LOEW, which I found in abundance attending the horn fly on cattle at Lawrence, Kans.

genalis THOMSON, Eugen. Resa, 608.—Cal.

nobilis LOEW, Cent., iii, 67.—Ill. N. J.—Smith Cat.

pallidus LOEW, Cent., vi, 93.—Cuba.

plebeius LOEW, Cent., iii, 68.—D. C.

SCHWARZ, Ins. Life, vii, 374, fig. and habits; same habits as *flavipes*, above.—Fla. N. J.—Smith Cat.

plumbellus WIEDEMANN, Auss. Zw., ii, 574 (*Homalura*).—W. I.

LOEW, Mon. N. A. Dipt., i, 46, refers to *Siphonella*.

N. J.—Smith Cat., oc. and gen. ref.

proboscideus WILLISTON, Trans. Ent. Soc. Lond., 1896, 418.—St. Vincent, W. I.

pusio LOEW, Cent., x, 87.—Texas.

SCHWARZ, Ins. Life, vii, 376, annoys people in Fla.

COQUILLETT, Proc. U. S. N. M., xxii, 265, oc. in Porto Rico and "as far north as New Bedford, Mass." N. J.—Smith Cat.; White Mts., N. H.—Slosson.

scutellaris WILLISTON, Trans. Ent. Soc. Lond., 1896, 420.—St. Vincent, W. I.

stramineus LOEW, Cent., x, 90 (*Opetiophora*, n. gen.).—Texas.

COQUILLETT, Jour. N. Y. Ent. Soc., vi, 44, gen. ref. N. J.—Smith Cat.

tener COQUILLETT, Proc. U. S. N. M., xxii, 265.—Porto Rico.

ELACHIPTERA.

MACQUART, Hist. Nat. Dipt., ii, 621, 1835.

VON ROSER, Verz. Wurttemb. Dipt., Nachtrag, 1840 (*Crassiseta*).

LOEW, Dipt. Beitr., i, 48, 1845 (id.).

SCHINER, Fauna Austr., ii, 231, 1864, desc. and syn.

costata LOEW, Cent., iii, 62 (*Crassiseta*).—D. C.

COQUILLETT, Bull. 10, n. ser., Div. of Ent., 72, larvæ in wheat, oats, radish, and root of melon.—Ohio, Ill., Pa.

HOWARD, Proc. Wash. Acad. Sci., ii, 591, note.

St. Augustine, Fla.—Johnson; N. J.—Smith Cat.

dispar WILLISTON, in Forbush and Fernald's Rept. on Gypsy Moth, 390.—Mass.

COQUILLETT, Jour. N. Y. Ent. Soc., vi, 48, would make this a syn. of *Gaurax anchora*.

eunota LOEW, Cent., x, 89 (*Crassiseta*).—Texas. N. J.—Smith Cat.

flavida WILLISTON, Trans. Ent. Soc. Lond., 1896, 417.—St. Vincent, W. I.

formosa LOEW, Cent., iii, 61 (*Crassiseta*).—D. C.

White Mts., N. H.—Slosson; Ormond, Fla.—Johnson.

longula LOEW, Cent., iii, 64 (*Crassiseta*).—D. C.

WEBSTER, Canad. Ent., 1900, 213, reared from wheat plants in Ohio.

COQUILLETT, Bull. 10, n. ser., Div. of Ent., 72, larvæ infesting *Panicum*, oats, and wheat.—Ind., Ohio. White Mts., N. H.

nigriceps LOEW, Cent., iii, 63 (*Crassiseta*).—D. C.

COQUILLETT, Bull. 10, n. ser., Div. of Ent., 72, 73; larvæ in decaying pond-lilies, also in *Panicum* and oats.—D. C., Ind. N. J.—Smith Cat.

CHITTENDEN, Bull. 33, n. ser., 76, note.

nigricornis LOEW, Cent., iii, 65 (*Crassiseta*).—D. C.

COQUILLETT, Bull. 10, n. ser., Div. of Ent., 72; larvæ in wheat.—Ind. White Mts., N. H.—Slosson.

MOSILLUS.

LATREILLE, Hist. Nat. Crust. et Ins., xiv, 389, 1804.

FALLÉN, Oscinides, 10, 1820 (*Gymnopa*).

MEIGEN, Syst. Besch., vi, 135 (id.), 1830.

ZETTERSTEDT, Dipt. Scand., vii, 2678, 1848 (id.).

SCHINER, Fauna Austr., ii, 234, 1864.

LOEW, Jahrbuch d. K. K. Gelehrt. Ges. Krakau, 1870, 15 (*Gymnopa*).

OSTEN SACKEN, Cat., 1878, 262, note 323.

nigroæneus WALKER, Dipt. Saund., 413 (*Gymnopa*).—U. S.

Unrecognizable—perhaps a *Psilopa*—J. M. A.

tarsalis WALKER, Dipt. Saund., 413 (*Gymnopa*).—U. S.

Unrecognizable—perhaps a *Psilopa*—J. M. A.

GAURAX.

LOEW, Cent., III, 66, 1863.

anchora LOEW, Cent., VII, 94.—N. Y.; larvæ inquilinous in cocoons of *Attacus cecropia* L.

COQUILLETT, Bull. 10, n. ser., Div. of Ent., 71; larvæ in eggshells of *Corydalis*, also in old cocoons of *Orgyia*.—D. C.

See *Elachiptera dispar*.

araneæ COQUILLETT, Ent. News, VII, 320.—Cal.; reared from egg-sacs of spider.

COQUILLETT, Bull. 10, n. ser., Div. of Ent., 72, reared from egg-sacs of *Argiope riparia* in Cal.

? **ephippium** ZETTERSTEDT, Dipt. Scand., VII, 2664 (*Oscinis*).—Sweden.

Beulah, N. M.—Skinner, with a doubt.

festivus LOEW, Cent., III, 66.—Pa.

lancifer COQUILLETT, Proc. U. S. N. M., XXII, 265.—Porto Rico and Montserrat, W. I.; bred from egg-sacs of spiders.

montanus COQUILLETT, Jour. N. Y. Ent. Soc., VI, 48.—White Mts., N. H.

signatus LOEW, Zeitsch., f. Ges. Naturwiss., 1876, 338.—Texas.

SIPHONELLA.

MACQUART, Hist. Nat. Dipt., II, 584, 1835.

LOEW, Wien. Ent. Monatsch., II, note to *Oscinis gilvipes*. [O. S.]

SCHINER, Fauna Austr., II, 228, 1864.

annulitarsis ZETTERSTEDT, Dipt. Scand., VII, 2674 (*Madiza*).—Europe.

SCHINER, Fauna Austr., II, 231, gen. ref.

VAN DER WULP, Tijdschr. v. Ent., X, 80, oc. in N. A.—Wis.

cinerea LOEW, Cent., III, 81.—Fla.

N. J.—Smith Cat.; Charlotte Harbor, Fla.—Johnson.

inquinata COQUILLETT, Jour. N. Y. Ent. Soc., VI, 48.—St. Louis and Kirkwood, Mo.; Va.

COQUILLETT, Bull. 10, n. ser., Div. of Ent., 75; larvæ found in cecidomyid gall on *Aster*, in cavity in apple, in twigs of *Cephalanthus*, and in berry of *Solanum carolinense*.—Mo., Va., Md.

lævigata FALLÉN, Oscinides, 9 (*Madiza*).—Europe.

ZETTERSTEDT, Dipt. Scand., VII, 2668 (*Madiza oscinina* FALL.).

SCHINER, Fauna Austr., II, 229, desc. and syn.

White Mts., N. H.—Slosson, det. by Coquilett.

Beulah, N. M.—Skinner.

latifrons LOEW, Cent., X, 91.—Texas. White Mts., N. H.—Slosson.

obesa FITCH, see *Chlorops assimilis*.

oscinina FALLÉN, Oscinides, 9 (*Madiza*).—Europe.

SCHINER, Fauna Austr., II, 229, note.

COQUILLETT, Bull. 10, n. ser., Div. of Ent., 75.—Md.; larvæ in egg-sac of a spider.

plumbella WIEDEMANN, see *Hippelates*.

pumilionis BJERKANDER, K. Vetensk. Akad. Handl., 1778, 240 (*Musca*).—Europe.

ZETTERSTEDT, Dipt. Scand., VII, 2662.

SCHINER, Fauna Austr., II, 229.

Occurs in N. J.—Smith Cat.

reticulata LOEW, Cent., VIII, 78.—Cuba.

OSCINIS.

LATREILLE, Hist. Nat. Crust. et Ins., XIV, 385, 1804.

FALLÉN, Oscinides, 3, 1820.

SCHINER, Fauna Austr., II, 223, 1864.

WILLISTON, Trans. Ent. Soc. Lond., 1896, 421, 1896, table of St. Vincent species.

WEBSTER, Dept. Agric. Rept., 1886, 574, notes on a species infesting wheat straws; op. cit., 582, notes on a species infesting clover stems; Ins. Life, III, 81, on the infestation of wheat in U. S. and Canada.

RILEY and HOWARD, Ins. Life, I, 346, note on a species affecting chrysanthemums in Pa.

anonyma WILLISTON, Trans. Ent. Soc. Lond., 1896, 423.—St. Vincent, W. I. Porto Rico—Coquillett.

apicalis WILLISTON, Trans. Ent. Soc. Lond., 1896, 422.—St. Vincent, W. I.

atriceps LOEW, Cent., III, 74.—Pa.

brassicæ RILEY, see *Agromyza trifolii*.

carbonaria LOEW, Cent., VII, 76.—D. C.

FLETCHER, Trans. Royal Soc. Canada, 2d ser., v, 209, ref. and fig.

GARMAN, Bull. 30, Ky. Expt. Sta. (probably *variabilis*).—Ky.; larvæ live in young wheat plants.

FLETCHER, Rept. Ent. and Bot., 1898, 176, figs. and habits; additional items are given in the 1890 report; Trans. Royal Soc. Canada, 2d ser., v, 209, ref. and figure.—Ottawa, Can.

WEBSTER, Canad. Ent., 1900, 212, reared from wheat plants in Ohio.

COQUILLETT, Bull. 10, n. ser., Div. of Ent., 74; larvæ in wheat and in *Agropedium caninum*.—Ind., Nebr., Ottawa, Canada.

HOWARD, Proc. Wash. Acad. Sci., II, 591, note.—D. C., Va.

WEBSTER, Bull. 42, Div. of Ent., 1903, 51–56, life hist. The Lesser Wheat Stem-Maggot.

Hudsonian Zone, N. M.—Cockerell; Alaska—Coquillett.

collusor TOWNSEND, Proc. Cal. Acad. Sci., IV, 619.—Lower Cal.; causes irritation to the eyes of travelers, and the disease called "mal de ojo."

concinna WILLISTON, Trans. Ent. Soc. Lond., 1896, 424.—St. Vincent, W. I.

coxendix FITCH, 2d N. Y. Rept., 533.—N. Y.

COQUILLETT, Proc. U. S. N. M., XXII, 266, oc. in Porto Rico, and "from N. H. to Fla., and westward to Col."

COQUILLETT, Bull. 10, n. ser., Div. of Ent., 73, habits; larvæ in burrows of *Elasmopalpus lignosellus* ZELL. in corn-stalks; also in *Poa* and wheat.—Ga., Va., Ind., D. C.

WEBSTER, Canad. Ent., 1900, 212, reared from wheat plants.

HOWARD, Proc. Wash. Acad. Sci., II, 591, larvæ in roots of *Ambrosia artemisiifolia*.—D. C.

crassifemoris FITCH, see *Platyphalpus*, family Empididæ.

decipiens LOEW, Cent., III, 76.—Sitka.

dorsalis LOEW, Cent., III, 72.—Pa. White Mts., N. H.—Slosson.

dorsata LOEW, Cent., VIII, 77 (*dorsalis*, preoc.); App., p. 291, change of name.—Newport, R. I.

WEBSTER, Canad. Ent., 1900, 212, reared from wheat plants in Ohio.

White Mts., N. H.—Slosson.

flaviceps LOEW, Cent., III, 71.—Cuba.

fur WILLISTON, Trans. Ent. Soc. Lond., 1896, 425.—St. Vincent, W. I.

hirta LOEW, Cent., III, 75.—Ill.

incipiens WILLISTON, Trans. Ent. Soc. Lond., 1896, 425.—St. Vincent, W. I.

longipes LOEW, Cent., III, 77.—D. C.

COQUILLETT, Bull. 10, n. ser., Div. of Ent., 74; larvæ in pods and seeds of *Catalpa*.—Pa.

malvæ BURGESS, see *Agromyza jucunda*.

mitis WILLISTON, Trans. Ent. Soc. Lond., 1896, 424.—St. Vincent, W. I.

nana WILLISTON, Trans. Ent. Soc. Lond., 1896, 423.—St. Vincent, W. I.

COQUILLETT, Proc. U. S. N. M., XXII, 267, oc. in Porto Rico.

nudiuscula LOEW, Cent., III, 70.—Ga.

obscura COQUILLETT, Proc. U. S. N. M., XXII, 266.—Porto Rico.

pallipes LOEW, Cent., III, 69.—Cuba.

LUGGER, 2d Minn. Rept., 170, fig.; adults affecting cattle, etc.

COQUILLETT, Bull., 10, n. ser., Div. Ent., 74; bred from artichoke.—Fla.

See *Hippelates flavipes*, which I think is the same; I found it attending the horn fly on cattle in Kans., and this is evidently what Lugger mentions, or a similar habit.

White Mts., N. H.—Slosson.

pectoralis COQUILLETT, Jour. N. Y. Ent. Soc., VI, 49.—White Mts., N. H.

quadrilineata WILLISTON, Trans. Ent. Soc. Lond., 1896, 422.—St. Vincent, W. I.
Porto Rico—Coquillett.

soror MACQUART, Dipt. Exot., Suppl. iv, 306, pl. XXVIII, f. II (*Chlorops*).—N. A.
LUGGER, 2d Minn. Rept., 1896, 6-10, fig.—Minn.; infests stems of wheat near ground.

COQUILLETT, Bull. 10, n. ser., Div. of Ent., 73; larvæ in *Panicum*, *Poa*, oats, strawberries, cucumber roots, and seed pods of *Veronica*.—Mich., Md., Ind., Ohio, D. C. N. J.—Smith Cat.

WEBSTER, Bull. 42, Div. of Ent., 1903, 57-62, figs., life history, etc. The American Frit-Fly.

subvittata LOEW, Cent., III, 78.—D. C.

tibialis FITCH, 2d N. Y. Rept., 532, pl. 1, f. 5.—N. Y.

triangularis WILLISTON, Trans. Ent. Soc. Lond., 1896, 421, pl. XIV, f. 153a.—St. Vincent, W. I.

trifolii BURGESS, see *Agromyza*.

trigramma LOEW, Cent., III, 80.—D. C.

WEBSTER, Canad. Ent., 1900, 212, reared from wheat plants in Ohio.

COQUILLETT, Bull. 10, n. ser., Div. of Ent., 73, habits; larvæ in burrows of *Elasmopalpus lignosellus* ZELL. in cornstalks; also reared from fall wheat.—Ga., Ind., Ida., Cal.

HOWARD, Proc. Wash. Acad. Sci., II, 591, reared from human excrement.—D. C., Md.

N. J.—Smith Cat.

umbrosa LOEW, Cent., III, 73.—Pa.

WEBSTER, Canad. Ent., 1900, 212, reared from wheat plants.

COQUILLETT, Bull. 10, n. ser., Div. of Ent., 74, larvæ in *Poa* and wheat; Proc. U. S. N. M., XXII, 267, oc.—D. C. and Ind.; Porto Rico.

variabilis LOEW, Cent., III, 79.—D. C.

Note.—The supposed *variabilis* that affects wheat has been referred to *carbonaria*.

virgata COQUILLETT, Jour. N. Y. Ent. Soc., VI, 49.—Col.
Porto Rico—Coquillett.

DROSOPHILIDÆ.

Note.—Mr. Kahl informs me that *Leucophenga* MIK, Wien. Ent. Zeit., 1886, 317, occurs in N. A.

ASTEIA.

MEIGEN, Syst. Besch., vi, 88, 1830.

LOEW, Berl. Ent. Zeitsch., ii, 114.

SCHINER, Fauna Austr., ii, 280, 1864.

tenuis WALKER, Trans. Ent. Soc., n. ser., v, 331.—U. S.; genus with a query.

OSTEN SACKEN, Cat., gives the genus without the query.

SIGALOËSSA.

LOEW, Cent., vi, 100, 1865; family Asteidæ.

SCHINER, Novara, 238, 1868; family Drosophilidæ.

WILLISTON, Manual, 107, 1896; same.

COQUILLET, Jour. N. Y. Ent. Soc., vi, 45, refers to Oscinidæ.

bicolor LOEW, Cent., vi, 100.—Cuba.

COQUILLET, Proc. U. S. N. M., xxii, 267, oc. in Porto Rico.

flaveola COQUILLET, Jour. N. Y. Ent. Soc., vi, 49.—D. C.; Fla.; White Mts., N. H.

PHORTICA.

SCHINER, Wien. Ent. Monatsch., vi, December, 1862.

LOEW, Cent., ii, 93, May, 1862 (*Amiota*, without desc.); l. c., appendix, p. 288, recognizes *Phortica*.

OSTEN SACKEN, Cat., 262, note.

alboguttata WAHLBERG, K. Vetensk. Akad. Handl., 1838, 22 (*Drosophila*).—Europe.

ZETTERSTEDT, Dipt. Scand., vi, 2547 (id.).

SCHINER, Fauna Austr., ii, 279 (*Drosophila sens. str.*).

OSTEN SACKEN, Cat., 205, oc. in N. A., on authority of "Loew in litt."

humeralis LOEW, Cent., ii, 3 (*Amiota*).—D. C. N. J.—Smith Cat.

leucostoma LOEW, Cent., ii, 94 (*Amiota*).—Pa. N. J.—Smith Cat.; Axton, N. Y.—M. and H.

scutellaris WILLISTON, Trans. Ent. Soc. Lond., 1896, 416.—St. Vincent, W. I.

vittata COQUILLET, Proc. U. S. N. M., xxiii, 618.—Avalon and Del. Water Gap, N. J.; N. Y.

STEGANA.

MEIGEN, Syst. Besch., vi, 207, 1830.

SCHINER, Fauna Austr., ii, 270, 1864.

WILLISTON, Kans. Univ. Quart., vi, 12, 1897, note.

coleoptirata SCOPOLI, Ent. Carniol., 338 (*Musca*), 1763.—Europe.

MEIGEN, Syst. Besch., vi, 80 (*hypoleuca*).

SCHINER, Fauna Austr., ii, 271.

LOEW, in Silliman's Jour., oc. in N. A. (*hypoleuca*).

N. J.—Smith Cat.; White Mts., N. H.—Slosson.

curvipennis FALLÉN, Geomyzides, 4 (*Drosophila*).—Europe.

MEIGEN, Syst. Besch., vi, 79, pl. LVIII, f. 24, 25 (*nigra*).

WALKER, Ins. brit., iii, xiv (*furta*).

SCHINER, Fauna Austr., ii, 271.

LOEW, in Silliman's Jour., oc. in N. A. (*nigra*).

horæ WILLISTON, Trans. Ent. Soc. Lond., 1896, 405, pl. XIII, f. 150.—St. Vincent, W. I.

tarsalis WILLISTON, Trans. Ent. Soc. Lond., 1896, 404, pl. XIII, f. 149.—St. Vincent, W. I.

CYRTONOTUM.

MACQUART, Dipt. Exot., II, 3, 193, 1844 (*Curtonotum*).

SCHINER, Fauna Austr., II, 22, 1864 (id.).

LOEW, Centuries, App., p. 288, changed to *Diplocentra*, on account of alleged preoccupation of *Curtonotum*.

OSTEN SACKEN, Berl. Ent. Zeitsch., 1882, 243 (*Diplocentra*).

MIK, Wien. Ent. Zeit., XVII, 168, 1898, discussion of supposed preoccupation; adopts *Cyrtotonotum*.

gibbum FABRICIUS, Syst. Anth., 297 (*Musca*).—S. A.

WIEDEMANN, Auss. Zw., II, 586 (*Hclomyza*).—S. A.

MACQUART, Dipt. Exot., II, 3, 193, pl. xxv, f. 9, 10.—S. A.

RONDANI, Ins. Ditt. Brasil., 1848, 18, 30.—S. A.

SCHINER, Novara, 237.—S. A.

WALKER, List, IV, 1090, oc. at Para, S. A.

GIGLIO-TOS, Ditt. del Mess., IV, 36, oc. in Tuxpango, Mex. (*Diplocentra*).

helvum LOEW, Cent., II, 91 (*Diplocentra*).—North Red River.

N. J.—Smith Cat.

simplex SCHINER, Novara, 237.—Brazil.

GIGLIO-TOS, Ditt. del Mess., IV, 36 (*Diplocentra*), oc. in Tuxpango, Mex.

DROSOPHILA.

FALLÉN, Geomyzides, 4, 1823.

MEIGEN, Syst. Besch., VI, 81, 1830.

SCHINER, Fauna Austr., II, 275, 1864.

WILLISTON, Trans. Ent. Soc. Lond., 1896, 406, table of 23 St. Vincent species.

Note.—The genus *Scaptomyza* (HARDY, Proc. Berwickshire Nat. Club, 349, 1849) is accepted by Mr. Coquillett; it would include a considerable number of the species of *Drosophila*. See Schiner, Fauna Austr., II, 276, and Coquillett, Proc. Wash. Acad. Sci., II, 462.

Note 2.—The apple burrowing habit attributed to *Drosophila* sp. in Amer. Nat., II, 641, does not seem to be sufficiently corroborated. More likely the actual burrower was *Trypeta pomonella*, and *Drosophila* lived in the cavities.

adusta LOEW, Cent., II, 98.—D. C. N. J.—Smith Cat.

CHITTENDEN, Bull. 33, n. ser., 76, mining leaves of cabbage, etc. (*Scaptomyza*).—Maine to Fla. and Ill.

albipes WALKER, Dipt. Saund., 410.—U. S.

amena LOEW, Cent., II, 96.—D. C.

COMSTOCK, Dept. Agric. Rept., 1881-2, 201, pl. XVI; larvæ living in decaying apples: "The Pretty Pomace Fly."

N. J.—Smith Cat.; White Mts., N. H.—Slosson; Kans., Mich.—J. M. A.

ampelophila LOEW, Cent., II, 99.—Cuba; S. Europe and N. Africa.

COMSTOCK, Dept. Agric. Rept., 1881-2, 198-201, full life history; larvæ reared from decaying apples, etc.: "The Vine-loving Pomace Fly."

WILLISTON, Canad. Ent., 1882, 138; larvæ in apple pomace, etc.

HOWARD and MARLATT, Bull. 4, n. ser., Div. of Ent., 110, figs., habits and remedies.

COCKERELL, Bull. 32, Ariz. Expt. Sta., 290-294, account of larvæ injuring oranges—not, however, until they had been attacked by rot.

HOWARD, Proc. Wash. Acad. Sci., II, 589, pl. XXXI, f. 2, review of habits; reared from human excrement; Farmers' Bull. 155, Dept. Ag., figs. all stages.

LINTNER, 1st N. Y. Rept., 216-221, transl. of orig. desc.; habits; larvæ in pickles and jam.—N. Y.

MOTTER, Jour. N. Y. Ent. Soc., vi, 223, oc. in human graves.

MELICHAR, Wien. Ent. Zeit., xx, 7, oc. in Austria, common.

HENDEL, Verh. Zool.-Bot. Ges., 1900, 327, footnote, asserts on authority of Mik that the European *ucarum* is the same (this I take to be a later name, not finding it in Schiner).

Forbes has reported this species as living in the larval stage in grapes; I have not the reference at hand.

annulata WILLISTON, Trans. Ent. Soc. Lond., 1896, 409.—St. Vincent, W. I.
apicata THOMSON, Eugen. Resa, 597.—Cal.

White Mts., N. H.—Slosson (*Scaptomyza*).

bellula WILLISTON, Trans. Ent. Soc. Lond., 1896, 410.—St. Vincent, W. I.

bilineata WILLISTON, Trans. Ent. Soc. Lond., 1896, 409.—St. Vincent, W. I.

bimaculata LOEW, Cent., vi, 91.—Cuba.

brevis WALKER, Dipt. Saund., 411.—U. S.

busckii COQUILLETT, Ent. News, xii, 18.—D. C., W. Va., Ill.

HOWARD, Proc. Wash. Acad. Sci., ii, 590, reared from rotten potatoes; also found in the burrows of *Chion cinctus*.—W. Va., Ill.

Lawrence, Kans.—Kahl, in litt.

[*cellaris* LINNÉ, of Walker, is a mistake—O. S. Cat., 206.]

coffeata WILLISTON, Trans. Ent. Soc. Lond., 1896, 409.—St. Vincent, W. I.

colorata WALKER, List, iv, 1110.—N. Y. N. J.—Smith Cat.

confusa ST. EGGER, Kröyer's Tidskr., i, 18.—Europe.

MEIGEN, Syst. Besch., vi, 83 (*fenestrarum*).

ZETTERSTEDT, Dipt. Scand., vi, 2565.

SCHINER, Fauna Austr., ii, 279, syn., etc.

Smith Cat., oc. in N. A.—N. J.

decemguttata WALKER, Dipt. Saund., 411.—U. S.

dimidiata LOEW, Cent., ii, 95.—Ill.

excita GIGLIO-TOS, Boll. R. Univ. Torino, viii, No. 158; Ditt. del Mess., iv, 66.—Mex.

fasciola WILLISTON, Trans. Ent. Soc. Lond., 410.—St. Vincent, W. I.

flaveola MEIGEN, Syst. Besch., vi, 66.—Europe.

WALKER, Ins. brit., ii, 238 (*apicalis*).

HARDY, Proc. Berwickshire Nat. Club, 362 (*Scaptomyza apicalis*).

ZETTERSTEDT, Dipt. Scand., vi, 2571 (*pallida*).

SCHINER, Fauna Austr., ii, 279, syn., etc.

COQUILLETT, Ins. Life, vii, 381, figs. and life hist.; larvæ mine leaves of radishes; Proc. Wash. Acad. Sci., ii, 462 (*Scaptomyza*).—D. C.; Alaska, Conn., and White Mts., N. H.

CHITTENDEN, Bull. 33, n. ser., Div. Ent., 75, fig. mining leaves of cabbage, etc. (*Scaptomyza*).—D. C.; Ky.

flexa LOEW, Cent., vi, 89.—Cuba.

frontalis WILLISTON, Trans. Ent. Soc. Lond., 1896, 413.—St. Vincent, W. I.

fronto WALKER, Dipt. Saund., 410.—U. S.

funebri FABRICIUS, Mant. Ins., ii, 345; Ent. Syst., iv, 323; Syst. Antl., 299 (all *Musca*).—Europe.

SCOPOLI, Ent. Carniol., 337 (*Musca anopota*).

PANZER, Fauna German., xvii, 24 (*Musca erythrophthalma*).

MACQUART, Dipt. Exot., Suppl. iv, 305, oc. in N. A.

ZETTERSTEDT, Dipt. Scand., vi, 2563.

SCHINER, Fauna Austr., ii, 278, syn. and desc.

COQUILLETT, Proc. U. S. N. M., xxii, 264, oc. in Porto Rico and "over the greater portion of the United States."

HOWARD, Proc. Wash. Acad. Sci., ii, 590, bred from rotten cherries in Mass., and recorded as breeding in the waste of pressed olives in Mauritius; oc. in Md.

WEBSTER, Canad. Ent., 1900, 213, oc. in Ohio.

Note.—Schiner states that the larvæ live in fermenting fruits, etc., and in fungi.

fusca COQUILLETT, Proc. U. S. N. M., xxii, 264.—Porto Rico.

graminum FALLÉN, Geomyzides, 8.—Europe.

ZETTERSTEDT, Ins. Lapp., 777 (*sordida* and *flavipennis*); Dipt. Scand., vi, 2560.

SCHINER, Fauna Austr., ii, 279.

LOEW, in Silliman's Jour., oc. in N. A. N. J.—Smith Cat.

CHITTENDEN, Bull. 33, n. ser., Div. of Ent., 76, mining leaves of cabbage, etc. (*Scaptomyza*).—N. H. to La.

guttifera WALKER, List, iv, 1110.—Fla.

illota WILLISTON, Trans. Ent. Soc. Lond., 1896, 415.—St. Vincent, W. I.

quinaria LOEW, Cent., vi, 90.—N. Y.

RILEY and HOWARD, Ins. Life, i, 259, reared from a mass of cochineal insects—"however, of course, not a parasite."—Texas.

White Mts., N. H.—Slosson.

sigmoides LOEW, Cent., x, 86.—Texas.

inversa WALKER, Trans. Ent. Soc., n. ser., v, 331.—U. S.

White Mts., N. H.—Slosson.

limbata WILLISTON, Trans. Ent. Soc. Lond., 1896, 414.—St. Vincent, W. I.

linearis WALKER, Dipt. Saund., 411.—U. S.

maculosa COQUILLETT, Proc. Acad. Nat. Sci. Phil., 1895, 317.—Charlotte Harbor, Fla.

mexicana MACQUART, Dipt. Exot., ii, 3, pl. xxxv, f. 1.—Mex.

GIGLIO-TOS, Ditt. del Mess., iv, 66, oc. in Mexico.

minuta WALKER, Dipt. Saund., 412.—U. S.

multipuncta LOEW, Cent., vii, 93.—D. C.

nana WILLISTON, Trans. Ent. Soc. Lond., 1896, 416.—St. Vincent, W. I.

obesa LOEW, Cent., x, 85.—Texas.

obscuripennis LOEW, Cent., vi, 92.—Cuba.

opaca WILLISTON, Trans. Ent. Soc. Lond., 1896, 411.—St. Vincent, W. I. Also in Brazil; Will., Kans., Univ. Quart., vi.

ornatipennis WILLISTON, Trans. Ent. Soc. Lond., 1896, 407, pl. xiii, f. 151.—St. Vincent, W. I.

pallida WILLISTON, Trans. Ent. Soc. Lond., 1896, 415.—St. Vincent, W. I.

pleuralis WILLISTON, Trans. Ent. Soc. Lond., 1896, 411.—St. Vincent, W. I.

pollinosa WILLISTON, see *Paratissa*.

procnemis WILLISTON, Trans. Ent. Soc. Lond., 1896, 412.—St. Vincent, W. I.

Mr. Kahl informs me that this occurs at Lawrence, Kans.

punctulata LOEW, Cent., ii, 100.—Cuba.

St. Vincent, W. I.—Will.; St. Augustine, Fla.—Johnson.

quadrinaculata WALKER, Dipt. Saund., 410.—U. S.

N. J.—Smith Cat.; Charlotte Harbor, Fla.—Johnson.

similis WILLISTON, Trans. Ent. Soc. Lond., 415.—St. Vincent, W. I.

sororia WILLISTON, Trans. Ent. Soc. Lond., 1896, 408.—St. Vincent, W. I.

splendida WILLISTON, Trans. Ent. Soc. Lond., 1896, 412.—St. Vincent, W. I.

terminalis LOEW, Cent., iii, 60.—Sitka.

thoracis WILLISTON, Trans. Ent. Soc. Lond., 411.—St. Vincent, W. I.

transversa FALLÉN, Geomyzides, 6.—Europe.

MEIGEN, Syst. Besch., vi, 84.

SCHINER, Fauna Austr., ii, 276.

LOEW, in Silliman's Jour., oc. in N. A.

White Mts., N. H.—Slosson.

tripunctata LOEW, Cent., ii, 97.—D. C.

valida WALKER, Trans. Ent. Soc., n. ser., iv, 232.—U. S.

varia WALKER, List, iv, 1109.—Ga.

verticis WILLISTON, Trans. Ent. Soc. Lond., 1896, 413.—St. Vincent, W. I.

vittata COQUILLETT, Proc. Acad. Nat. Sci. Phil., 1895, 318.—Charlotte Harbor, Fla.

COQUILLETT, Proc. U. S. N. M., xxii, 264, oc. in Porto Rico.

vittatifrons WILLISTON, Trans. Ent. Soc. Lond., 1896, 408, pl. xiii, f. 152.—St. Vincent, W. I.

STENOMICRA.

COQUILLETT, Proc. U. S. N. M., xxii, 262, 1900.

angustata COQUILLETT, loc. cit.—Porto Rico.

CLADOCHÆTA.

COQUILLETT, Proc. U. S. N. M., xxii, 263, 1900.

nebulosa COQUILLETT, loc. cit.—Porto Rico.

GEOMYZIDÆ.

BALIOPTERA.

LOEW, Berl. Ent. Zeitsch., viii, 347-356, 1864.

lurida LOEW, Cent., v, 98 (*Opomyza*); Berl. Ent. Zeitsch., viii, 356, gen. ref.—Sitka.

DIASTATA.

MEIGEN, Syst. Besch., vi, 211, 1830.

SCHINER, Fauna Austr., ii, 288, 1864.

COMSTOCK, Dept. Agric. Rept., 1880, 245, mentions a species that mines leaves of Indian corn.—D. C.

eluta LOEW, Cent., iii, 59.—Sitka.

nebulosa FALLÉN, Geomyzides, 3 (*Geomyza*).—Europe.

MEIGEN, Syst. Besch., vi, 98 (*ornata*). [Syn. by Schiner, who would also add *nebulosa*, p. 99, with a doubt.]

ZETTERSTEDT, Dipt. Scand., vi, 2536.

SCHINER, Fauna Austr., ii, 289.

WEBSTER, Canad. Ent., 1900, 213, oc. in Ohio; det. Coquillett.

N. J.—Smith Cat.

pulchra LOEW, Cent., i, 100.—Pa. N. J.—Smith Cat.

tenuipes WALKER, List, iv, 1112.—Martin Falls, Canada.

[*vagans* LOEW MS., mentioned in O. S. Cat., 204, note.]

ISCHNOMYIA.

LOEW, Cent., iv, 97, 1863; Berl. Ent. Zeitsch., ix, 16, 1865.

CZERNY, Wien. Ent. Zeit., xxi, 249, 1902; xxii, 63, 1903.

vittula LOEW, Cent., iv, 97.—Pa. N. J.—Smith Cat.

WALKER, List, iv, 1112 (*Diastata* ? *albicosta*).—No locality. [Czerny, from Walker's type.]

TAUROMYIA.

GIGLIO-TOS, Boll. R. Univ. Torino, viii, No. 158, 1893; Ditt. del Mess., iv, 37, 1895.

VAN DER WULP, Biologia, Dipt., ii, 354, note on position.

pachyneura GIGLIO-TOS, Boll. R. Univ. Torino, viii, No. 158; Ditt. del Mess., iv, 37, f. 7, 8.—Mex.

ANTHOMYZA.

FALLÉN, Specimin. Entomol., 1810; Agromyzides, 7, 1823.

MACQUART, Hist. Nat. Dipt., ii, 580, 1835 (*Leptomyza*).

ZETTERSTEDT, Ins. Lapp., 785, 1840 (*Anthophilina*; the *Anthomyza* of Zetterstedt is entirely different).

SCHINER, Fauna Austr., ii, 281, 1864 (*Leptomyza*).

LOEW, Berl. Ent. Zeitsch., ix, 16, 1865.

OSTEN SACKEN, Cat., 261, 1878, note (adopts *Anthophilina*).

CZERNY, Wien. Ent. Zeit., xxi, 249, 1902; xxii, 63, 1903.

cinerea WILLISTON, see *Rhinoessa*.

? **nigrimanus** COQUILLETT, Proc. U. S. N. M., xxii, 264.—Porto Rico.

Does not belong to this genus: Hendel, quoted by Czerny, W. E. Z., xxi, 256.

tenuis LOEW, Cent., iv, 95 (*Anthophilina*).—Sitka. White Mts., N. H.—Slosson.

terminalis LOEW, Cent., iv, 94 (*Anthophilina*).—Carolina; O. S. corrects in Cat. to White Mts., N. H.

variegata LOEW, Cent., iv, 96 (*Anthophilina*).—D. C. N. J.—Smith Cat.

xanthopoda WILLISTON, see *Rhinoessa*.

OPOMYZA.

FALLÉN, Opomyzides, 10, 1820.

MEIGEN, Syst. Besch., vi, 100, 1830.

SCHINER, Fauna Austr., ii, 283, 1864.

nigricosta WALKER, Trans. Ent. Soc., n. ser., v, 330.—U. S.

SCYPHELLA.

DESVOIDY, Myodaires, 650, 1830.

SCHINER, Fauna Austr., ii, 282, 1864.

flava LINNÉ, Fauna Suecica, 2d edit., 459, No. 1869 (*Musca*).—Europe.

FALLÉN, Orthalides, 34 (*Sapromyza*).

SCHINER, Fauna Austr., ii, 283.

LOEW, in Silliman's Jour., oc. in N. A.—N. Y., on windows.

N. J.—Smith Cat.; White Mts., N. H.—Slosson.

AGROMYZIDÆ.

WILLISTON, Ent. News, vii, 185, reports the genus *Lciomyza*; no species have been described.

Subfamily PHYTOMYZINÆ.

PHYTOMYZA.

FALLÉN, Phytomyzides, 2, 1823.

SCHINER, Fauna Austr., ii, 312, 1864 (including *Napomyza*).

WILLISTON, Manual, 103, 1896, the first *Phytomyza* in the table; the second is *Napomyza*, q. v.

affinis FALLÉN, *Phytomyzides*, 3.—Europe.

MACQUART, *Hist. Nat. Dipt.*, II, 618 (*nigricornis*).

MEIGEN, *Syst. Besch.*, VII, 404 (id.).

ZETTERSTEDT, *Dipt. Scand.*, VII, 2827.

SCHINER, *Fauna Austr.*, II, 316.

LUNDBECK, *Dipt. Grœnl.*, II, 306, oc. in Greenland.

HEEGER, *Sitzungsber. Kais. Akad. Wiss.*, XX, 297, figs., larva; it mines in parsnip leaves.

Note.—Schiner mentions the rearing of this from various European species of *Aconitum*, in which it mines the tips of the leaves.

equilegiæ HARDY, *Annals Nat. Hist.*, IV, 385.—England; larva mines the leaves of *Aquilegia vulgaris*.

COQUILLETT, *Bull.* 10, n. ser., Div. of Ent., 78.—D. C., Conn.; larva mines in nasturtium and columbine.

bicolor COQUILLETT, *Jour. N. Y. Ent. Soc.*, X, 191.—Niagara Falls, N. Y.

clematidis LOEW, *Cent.*, III, 100.—D. C.; larva mines the leaves of *Clematis*.

diminuta WALKER, *Trans. Ent. Soc.*, n. ser., IV, 232.—U. S.; see *Agromyza trifolii*.

flavicornis FALLÉN, *Phytomyzides*, 4.—Europe.

MEIGEN, *Syst. Besch.*, VI, 192, pl. LXII, f. 6.

ZETTERSTEDT, *Dipt. Scand.*, VII, 2825.

SCHINER, *Fauna Austr.*, II, 315.

COQUILLETT, *Proc. Wash. Acad. Sci.*, II, 464, oc. at Yakutat, Alaska.

genualis LOEW, *Cent.*, VIII, 100.—D. C.

ilicicola LOEW, *Cent.*, App., p. 290, change of name; *Cent.*, III, 99 (*ilicis*, preoc.).—D. C.; larva mines the leaves of *Ilex opaca*.

COQUILLETT, *Proc. Wash. Acad. Sci.*, II, 464, oc. in Alaska, Mass., Cal., and Ore.

nervosa LOEW, *Cent.*, VIII, 99.—D. C.

obscurella FALLÉN, *Phytomyzides*, 4.—Europe.

MEIGEN, *Syst. Besch.*, VI, 2815.

ZETTERSTEDT, *Dipt. Scand.*, VII, 2815.

SCHINER, *Fauna Austr.*, II, 315.—Europe; larvæ reared from the leaves of *Lonicera xylosticum* and *Sambucus*.

STEEGER, *Grœnl. Antl.*, 369, oc. in Greenland.

COQUILLETT, *Bull.* 10, n. ser., Div. of Ent., 79, records larvæ mining in leaves of *Lupinus* in Cal.

LUNDBECK, *Dipt. Grœnl.*, II, 305, oc. in Greenland.

solita WALKER, *Trans. Ent. Soc.*, n. ser., IV, 232.—U. S.

palliata COQUILLETT, *Jour. N. Y. Ent. Soc.*, X, 191.—Mesilla Park, N. M.

zetterstedtii SCHINER, *Fauna Austr.*, II, 305.—Europe.

ZETTERSTEDT, *Dipt. Scand.*, VII, 2821 (*maculipes*, preoc.).

LUNDBECK, *Dipt. Grœnl.*, II, 307, oc. in Greenland.

NAPOMYZA.

HALIDAY, *Westwood's Introd. to Mod. Classif. Ins.*, II, Appendix, 152, 1840.

SCHINER, *Fauna Austr.*, II, 313, 1864, as a subg. of *Phytomyza*.

WILLISTON, *Manual*, 1896, 104, the second division of *Phytomyza*.

anomala STROBL, *Wien. Ent. Zeit.*, 1893, 307 (*Phytomyza*).—Europe.

HOUGH, in litt., reports from Wash., collected by Kincaid (id.).

chrysanthemi KOWARZ, in *Lintner's 7th N. Y. Rept.*, 243-246 (*Phytomyza*).—N. Y.; larva is a leaf-miner in *Chrysanthemum*.

LINTNER, 4th N. Y. Rept., 73-79 (*Phytomyza lateralis*); 7th Rept., 242-246, more on habits (*Phytomyza*).

COQUILLETT, Ins. Life, vii, 399, figs. and life hist.; Bull. 10, n. ser., Div. of Ent., 79 (id.).—N. Y., Pa., Conn.; larvæ mine in chrysanthemum, marguerite, daisy and fever-few.

lateralis FALLÉN, Phytomyzides, 3, 1823 (*Phytomyza*).—Europe.

MEIGEN, Syst. Besch., vi, 190 (id.).

SCHINER, Fauna Austr., ii, 313 (id.).

GLOVER, MS. Notes Jour., Dipt., 1874, 40, mention (id.).

BRÄUER, Denkschr. Kaiserl. Akad. Wiss., XLVII, 90 (id.).

COQUILLETT, Proc. Wash. Acad. Sci., ii, 464, oc. in N. A.—Popof Id.

Note.—According to Schiner, the larvæ live in the pith of the stem of *Verbena*, *Centaurea*, etc., and the flower-head of *Pyræthrum*.

nigritella ZETTERSTEDT, Dipt. Scand., vii, 2816 (*Phytomyza*).—Europe.

LUNDBECK, Dipt. Grœnl., ii, 306, oc. in Greenland (id.).

PARAMYIA.

WILLISTON, Kans. Univ. Quart., vi, 1, 1897.

nigra WILLISTON, loc. cit., 2.—Grenada, W. I.

Subfamily AGROMYZINÆ.

CERATOMYZA.

SCHINER, Wien. Ent. Monatsch., vi, 1862; Fauna Austr., ii, 390, 1864.

MACQUART, Hist. Nat. Dipt., ii, 614 (*Odontocera*, preoc.).

dorsalis LOEW, Cent., iii, 96 (*Odontocera*).—D. C.

? WILLISTON, Trans. Ent. Soc. Lond., 1896, 427, pl. xiv, f. 155, doubtful oc. in St. Vincent, W. I.

COQUILLETT, Bull. 10, n. ser., Div. of Ent., 77, larvæ in timothy and wheat in Ind.; Proc. U. S. N. M., xxii, 269, oc. in Porto Rico.

HOPKINS, Bull. 17, n. ser., Div. of Ent., larvæ mining in timothy.

WEBSTER, Canad. Ent., 1900, 212, reared from wheat plants.

HOWARD, Proc. Wash. Acad. Sci., ii, 593, reared from human excrement—probably an unusual habit for the species.—D. C.

N. J.—Smith Cat.; White Mts., N. H.—Slosson.

Note.—An undescribed *Ceratomyza* has been reared from young wheat plants at Pullman, Wash., by Professor C. V. Piper; it causes considerable damage.

AGROMYZA.

FALLÉN, Agromyzides, 3, 1823.

SCHINER, Fauna Austr., ii, 299, 1864.

æneiventris FALLÉN, Agromyzides, 4.—Europe.

MEIGEN, Syst. Besch., vi, 169 (*ænca*).

ZETTERSTEDT, Dipt. Scand., vii, 2777.

SCHINER, Fauna Austr., ii, 304.

OSTEN SACKEN, Cat., 210, oc. in N. A.—“Loew in litt.”

COQUILLETT, Bull. 10, n. ser., Div. of Ent., 78; larvæ in burrows in roots of clover and stems of Ambrosia.—U. S.

N. J.—Smith Cat.; Porto Rico—Coquillett; Beulah, N. M.—Skinner.

Note.—Schiner says the larvæ have been reared from the pith of *Arc-tium*, and from the stems of *Angelica*, *Centaurea*, and *Carduus*.

angulata LOEW, Cent., viii, 87.—Pa. N. J.—Smith Cat.

- anthrax** WILLISTON, Trans. Ent. Soc. Lond., 1896, 430.—St. Vincent, W. I.
arctica LUNDBECK, Dipt. Grœnl., II, 304, fig.—Greenland.
coronata LOEW, Cent., VIII, 89.—Pa. N. J.—Smith Cat.
 Beulah, N. M.—Skinner.
flaviventris JOHNSON, see *melampyga*.
flavonigra COQUILLETT, Jour. N. Y. Ent. Soc., x, 189.—Beulah, N. M.
innominata WILLISTON, Trans. Ent. Soc. Lond., 1896, 443, pl. XIV, f. 158.—St. Vincent, W. I.
invaria WALKER, Trans. Ent. Soc., new ser., iv, 232.—U. S.
jucunda VAN DER WULP, Tijdschr. v. Ent., x, 161, pl. v, f. 19, 20.—Wis.
 BURGESS, Dept. Agric. Rept., 1879, 202 (*Oscinis malvæ*).—D. C. [Coq.]
 COMSTOCK, Dept. Agric. Rept., 1879, 201, mines in leaves of *Malva rotundifolia* (id.).
 COQUILLETT, Proc. U. S. N. M., XXII, 268, oc.; Bull. 10, n. ser., Div. Ent., 77, larvæ mine in *Verbena*, *Malva*, *Xanthium*, *Aplopappus*, *Helianthus*, *Solidago*, and *Aster*.—St. Vincent and U. S. generally; Mo., D. C., Cal. N. J.—Smith Cat.; White Mts., N. H.—Slosson; Georgetown, Fla.
 See *lateralis* WILL.
lacteipennis FALLÉN, Agromyzides, 4.—Europe.
 ZETTERSTEDT, Dipt. Scand., VII, 2768.
 SCHINER, Fauna Austr., II, 300.
 COQUILLETT, Proc. Wash. Acad. Sci., II, 464, oc. in N. A.—Saldovia, Alaska.
lateralis WILLISTON, Trans. Ent. Soc. Lond., 1896, 428, pl. XIV, f. 156.—St. Vincent, W. I.
 COQUILLETT, Proc. U. S. N. M., XXII, 268, makes this a syn. of *jucunda*; but the description seems to exclude this interpretation. The name is preoccupied.
longipennis LOEW, Cent., VIII, 90.—D. C. Lawrence, Kans.—J. M. A.
magnicornis LOEW, Cent., VIII, 86.—Pa. N. J.—Smith Cat.
marginata LOEW, Cent., VIII, 91.—D. C.
melampyga LOEW, Cent., VIII, 88.—D. C.
 COQUILLETT, Bull. 10, n. ser., Div. of Ent., 77; larvæ mine in *Philadelphus* and *Plantago*.—D. C.
 JOHNSON, Canad. Ent., 1902, 242 (*flaviventris*).—Niagara Falls, N. Y. [JOHNSON, in litt.] N. J.—Smith Cat.; White Mts., N. H.—Slosson.
?metallica BIGOT, in Sagra's Cuba, 825 (*Ulidia*).—Cuba.
 Gen. ref. doubtfully from Osten's note, Cat., 211.
neptis LOEW, Cent., VIII, 93.—Nebr.
 COQUILLETT, Bull. 10, n. ser., Div. of Ent., 78, larvæ in Indian corn and *Solidago*; Proc. U. S. N. M., XXII, oc.; Proc. Wash. Acad. Sci., II, 463, oc.—D. C., Va.; Porto Rico and "from Mass. to Fla. and Texas"; Juneau, Alaska.
parvicella COQUILLETT, Jour. N. Y. Ent. Soc., x, 189.—St. Paul Id., Alaska.
parvicornis LOEW, Cent., VIII, 92.—D. C. N. J.—Smith Cat.
picta COQUILLETT, Jour. N. Y. Ent. Soc., x, 188.—Frontera in Tabasco, Mex.
pictella THOMSON, Eugen. Resa, 609.—Cal.
platyptera THOMSON, Eugen. Resa, 608.—Cal.
pruinosa COQUILLETT, Jour. N. Y. Ent. Soc., x, 189.—Col.
setosa LOEW, Cent., VIII, 83.—D. C.
 HINE, Ohio Naturalist, II, 169, notes; reared from wild rice, *Zizania aquatica*.—Ohio.
 COQUILLETT, Bull. 10, n. ser., Div. of Ent., 78, larvæ in *Zizania*, *Chrysanthemum* and *Fragaria*.—D. C., N. Y., Cal.

- Palatka, Fla.—Johnson; Porto Rico—Coquillett; Beulah, N. M.—Skinner.
- simplex** LOEW, Cent., viii, 84.—Pa. N. J.—Smith Cat.
- SIRRIE, Bull. 189, N. Y. Expt. Sta., 1900; larvæ mine in asparagus; biology, etc.—N. Y.
- sorosis** WILLISTON, Trans. Ent. Soc. Lond., 1896, 429.—St. Vincent, W. I.
- terminalis** COQUILLETT, Proc. Acad. Nat. Sci. Phil., 1895, 318.—Pa.; Welaka, Fla.
- White Mts., N. H.—Slosson.
- trifolii** BURGESS, Dept. Agric. Rept., 1879, 201 (*Oscinis*).—D. C.
- COMSTOCK, Dept. Agric. Rept., 1879, 200 (id.), larvæ mine in white clover leaves.
- RILEY, Dept. Agric. Rept., 1884, 322, pl. viii, f. 5 (*Oscinis brassicæ*); larvæ mine cabbage leaves.
- COQUILLETT, Bull. 10, n. ser., Div. of Ent., 78, makes both the preceding synonyms of *Agromyza* (*Phytomyza*) *diminuta* WALKER, which last seems quite unrecognizable to me.
- CHITTENDEN, Bull. 33, n. ser., 77, mining leaves of cabbage, etc. (*diminuta*).
- tritici** FITCH, 2d N. Y. Rept., 534, pl. ii, f. 1.—N. Y.; larvæ in wheat straws.
- varifrons** COQUILLETT, Jour. N. Y. Ent. Soc., x, 189.—D. C.
- virens** LOEW, Cent., viii, 85.—Pa.
- viridula** COQUILLETT, Jour. N. Y. Ent. Soc., x, 190.—D. C., Mass., Ga., and Porto Rico.
- xanthophora** SCHINER, Novara, 291.—S. A.
- WILLISTON, Trans. Ent. Soc. Lond., 1896, pl. xiv, f. 157.—St. Vincent, W. I.

HEMEROMYIA.

- COQUILLETT, Jour. N. Y. Ent. Soc., x, 190, 1902.
- obscura** COQUILLETT, loc. cit.—Las Vegas Hot Spr., N. M.

PLATOPHYRMIA.

- WILLISTON, Trans. Ent. Soc. Lond., 1896, 426.
- nigra** WILLISTON, loc. cit.—St. Vincent, W. I.

DESMOMETOPA.

- LOEW, Cent., vi, 96, 1865.
- WILLISTON, Manual, 104, note, 1896.
- MIK, Wien. Ent. Zeit., xvii, 146, 1898, generic characters, etc.; a species in New Guinea has been observed clinging in pairs on the back of an Asilid while the latter was flying.
- halteralis** COQUILLETT, Proc. U. S. N. M., xxii, 267.—Porto Rico, Fla., N. M., Col., Mass. N. J.—Smith Cat.
- latipes** MEIGEN, Syst. Besch., vi, 177 (*Agromyza*).—Europe.
- SCHINER, Fauna Austr., ii, 308 (id.).
- OSTEN SACKEN, Cat., 210, oc. in N. A., by "Loew in litt."
- HOWARD, Proc. Wash. Acad. Sci., ii, 592, reared from human excrement.—D. C., Pa.
- luteola** COQUILLETT, Jour. N. Y. Ent. Soc., x, 188.—Frontera in Tabasco, Mex.
- m-nigrum** ZETTERSTEDT, Dipt. Scand., vii, 2743 (*Agromyza*).—Europe.
- OSTEN SACKEN, Cat., 210, oc. in N. A., by "Loew in litt." N. J.—Smith Cat.
- tarsalis** LOEW, Cent., vi, 96.—Cuba.

RHICNOËSSA.

LOEW, Wien. Ent. Monatsch., vi, 1862; Berl. Ent. Zeitsch., 1865, 34.

HENDEL, Wien. Ent. Zeit., xxi, 261, 1902.

albula LOEW, Cent., viii, 80.—Newport, R. I.

cinerea WILLISTON, Trans. Ent. Soc. Lond., 1896, 444, pl. xiv, f. 170 (*Anthomyza*).—St. Vincent, W. I.

CZERNY, Wien. Ent. Zeit., xxi, 256, gen. ref.

coronata LOEW, Cent., vi, 98.—Ga.

parvula LOEW, Cent., viii, 81.—Newport, R. I.

Kukak Bay and Saldovia, Alaska—Coquillett.

xanthopoda WILLISTON, Trans. Ent. Soc. Lond., 1896, 445 (*Anthomyza*).—St. Vincent, W. I.

CZERNY, Wien. Ent. Zeit., xxi, 256, gen. ref.

EUSIPHONA.

COQUILLETT, Revis. Tachin., 49, 1897; Canad. Ent., xxx, 53, family ref.

mira COQUILLETT, Revis. Tachin., 49; Canad. Ent., xxx, 53, note.—Ind., Col.

ARCTOBIELLA.

COQUILLETT, Jour. N. Y. Ent. Soc., x, 188, 1902.

obscura COQUILLETT, loc. cit.—Laggan, British Columbia.

PHYLLOMYZA.

FALLÉN, Ochthiphilides, 8, 1823.

SCHINER, Fauna Austr., ii, 311, 1864.

magnipalpis WILLISTON, Trans. Ent. Soc. Lond., 1896, 443, pl. xiv, f. 169.—St. Vincent, W. I.

nitens LOEW, Cent., viii, 82.—Pa.

CRYPTOCHÆTUM.

RONDANI, Bull. Soc. Ent. Ital., 1875, 172.

WILLISTON, Ins. Life, i, 21, 1888 (*Lcstophonus*); p. 329, places in the Ochthiphilinae and suggests synonymy.

MIK, Wien. Ent. Zeit., Aug., 1899, confirms synonymy; mentioned by Riley and Howard, Ins. Life, ii, 91.

iceryæ WILLISTON, Ins. Life, i, 21, fig. (*Lcstophonus*).—S. Australia; the larvae feed on the coccids *Icerya purchasi* and *Monophlebus cræfordi*—the last not occurring in N. A.

RILEY and HOWARD, Ins. Life, i, 166, 199, 232, etc., introduction into California (id.).

RILEY, Dept. Agric. Rept., 1889, 340, pl. iii, f. 3, 4, 5, gen. ref., and notes on food habits, etc.

Note.—Mr. Skuse of Australia and Dr. Riley thought there were two distinct species, the second named *monophlebi* SKUSE, that were introduced into the U. S.; see Ins. Life, ii, 261.

AULACIGASTER.

MACQUART, Hist. Nat. Dipt., ii, 579, 1835.

DUFOUR, Ann. Soc. Ent. France, 1845, 455 (*Apotemella*).

WAILBERG, K. Svenska Vet. Akad. Förh., 1847, 261 (*Amphycephora*).

SCHINER, Fauna Austr., ii, 269, 1804, desc. and syn.

rufitarsis MACQUART, Hist. Nat. Dipt., II, 580.—Europe.

ZETTERSTEDT, Dipt. Scand., VII, 2707.

SCHINER, Fauna Austr., II, 270.

OSTEN SACKEN, Cat., 210, oc. in N. A.—D. C., Texas ("Loew in litt.").

Subfamily MILICHINÆ.

MILICHIA.

MEIGEN, Syst. Besch., VI, 131, 1830.

WAHLBERG, Vetensk. Akad. Förh., 1847, 259 (*Lobioptera*).

SCHINER, Fauna Austr., II, 296, 1864 (id.).

COQUILLETT, Jour. N. Y. Ent. Soc., x, 185, footnote, 1902.

arcuata LOEW, Zeitsch. f. Ges. Naturwiss., 1876, 339 (*Lobioptera*).—Long Id., N. Y.

Ormond, Fla. (id.)—Johnson.

indecora LOEW, Cent., VIII, 94 (*Lobioptera*).—Nebr.

COQUILLETT, Proc. U. S. N. M., XXII, 263, oc. in Porto Rico and in U. S., "ranging from N. H. to Ga." (id.).

lacteipennis LOEW, see *Ophthalmomyia*.

leucogaster LOEW, Wien. Ent. Monatsch., v, 43, 20; Centuries, VIII, 95 (the latter as *Lobioptera*).—Cuba.

St. Vincent, W. I.—Williston.

robertsoni COQUILLETT, Jour. N. Y. Ent. Soc., x, 187.—Inverness, Fla.

OPHTHALMOMYIA.

WILLISTON, Trans. Ent. Soc. Lond., 1896, 426.

cinerea COQUILLETT, Proc. U. S. N. M., XXII, 268.—Porto Rico.

lacteipennis LOEW, Cent., VI, 97 (*Lobioptera*).—Cuba.

WILLISTON, Trans. Ent. Soc. Lond., 1896, pl. XIV, f. 154.—St. Vincent, W. I.

COQUILLETT, Proc. U. S. N. M., XXII, oc. in Porto Rico and U. S. from "D. C. to Fla. and west to N. M." Charlotte Harbor, Fla.—Johnson.

PHOLEOMYIA.

BILIMEK, Verh. Zool.-Bot. Ges., 1867, 903.

leucozona BILIMEK, loc. cit.—Mex.

ODINIA.

DESVOIDY, Myodaires, 648, 1830.

LOEW, Stett. Ent. Zeit., 1843, 310, 322 (*Milichia* MEIG.).

SCHINER, Fauna Austr., II, 297, 1864 (id.).

COQUILLETT, Jour. N. Y. Ent. Soc., x, 185, 1902, footnote.

immaculata COQUILLETT, Jour. N. Y. Ent. Soc., x, 185.—Mt. Washington, N. H.

picta LOEW, Centuries, I, 99 (*Milichia*).—Ga.

PARODINIA.

COQUILLETT, Jour. N. Y. Ent. Soc., x, 186, 1902.

cinerea COQUILLETT, loc. cit.—Los Angeles Co., Cal.

costalis COQUILLETT, Proc. Wash. Acad. Sci., III, 378 (*Rhinoëssa*); Jour. N. Y. Ent. Soc., x, 187, oc. and gen. ref.—Galapagos Ids.; Ariz.

PSEUDODINIA.

COQUILLETT, Jour. N. Y. Ent. Soc., x, 187, 1902.

varipes COQUILLETT, loc. cit.—Las Vegas Hot Spr., N. M.

TRAGINOPS.

COQUILLETT, Ent. News, 1900, 429.

irrorata COQUILLETT, loc. cit., figs.—Ga., N. J.

CACOXENUS.

LOEW, Wien. Ent. Monatsch., 1858, 217, 213.

SCHINER, Fauna Austr., II, 298, 1864.

semiluteus LOEW, Cent., VIII, 97.—Cuba.

Subfamily OCHTHIPHILINÆ.

LEUCOPIS.

MEIGEN, Syst. Besch., VI, 217, 1830.

SCHINER, Fauna Austr., II, 294, 1864.

COQUILLETT, Bull. 10, n. ser., Div. of Ent., 76, 77, notes of various species of aphids and coccids affected by *L. nigricornis*, *simplex*, *bella* and *bellula*.

BRODIE, Canad. Ent., XXIV, 14, reports the rearing of an undet. sp. from galls on *Nabulus altissimus*.

bella LOEW, Cent., 99.—Cuba.

TOWNSEND, Trans. Amer. Ent. Soc., XXII, 80, bred from plant-lice in Col.

COQUILLETT, Proc. U. S. N. M., XXII, 269, oc. in Porto Rico and "extending from Nova Scotia to Cal. and Mex." Bred in Porto Rico from larvæ feeding on *Dactylopius citri*.

WEBSTER, Canad. Ent., XXX, 19, reared from Melon louse.

Fla.—Johnson; Nova Scotia and Ottawa, Can.—Coquillett.

bellula WILLISTON, Ins. Life, I, 258.—Texas; the larvæ feed on cochineal insect—*Coccus cacti*.

COQUILLETT, Bull. 10, n. ser., Div. of Ent., 77.—Texas, N. M., Mex.; occurrence, etc.

nigricornis EGGER, Verh. Zool.-Bot. Ges., XII, 782.—Europe.

SCHINER, Fauna Austr., II, 295.

N. J.—Smith Cat.; Texas, Cal., N. H., and Ind.—Coquillett, Bull. 10; Beulah, N. M.—Skinner.

simplex LOEW, Cent., VIII, 96.—N. Y.

N. J.—Smith Cat.; White Mts., N. H.—Slosson; Va., Mich., Nebr., D. C.—Coquillett, Bull. 10.

OCHTHIPHILA.

FALLÉN, Ochthidiæ, 1823.

LOEW, Wien. Ent. Monatsch., 1858, 219, in an article about *Cacoxenus*.

SCHINER, Fauna Austr., II, 291, 1864.

elegans PANZER, Fauna Germanica, CV, 12 (*Chamomyia*).—Europe.

SCHINER, Fauna Austr., II, 292.

N. J.—Smith Cat.

lispina THOMSON, Eugen. Resa, 599.—Cal.

polystigma MEIGEN, Syst. Besch., VI, 92.—Europe.

SCHINER, Fauna Austr., II, 293.

N. J.—Smith Cat.; Montreal—Chagnon.

ACROMETOPA.

SCHINER, Wien. Ent. Monatsch., vi, 1862; Fauna Austr., ii, 290, 1864.

COQUILLETT, Jour. N. Y. Ent. Soc., x, 185, 1902, note.

punctata COQUILLETT, loc. cit.—Ga.

maculata COQUILLETT, loc. cit.—Baracoa, Cuba.

HIPPOBOSCIDÆ.

BIGOT, Annales, 1885, 230-234, table of all genera of Pupipara.

SPEISER, Wien. Ent. Zeit., xviii, 201, 1899, table of genera of Hippoboscidæ; Zeitsch. f. Hym. u. Dipterol., 1902, 145-180, an important generic revision, including Nycteribidæ.

HIPPOBOSCA.

LINNÉ, Fauna Suecica, 471, 1761.

SCHINER, Fauna Austr., ii, 644, 1864.

equina LINNÉ, Fauna Suec., 471.—Europe; a winged horse-tick.

SCHINER, Fauna Austr., ii, 644.

LOEW, in Silliman's Jour., oc. in N. A.; but it must be extremely rare, as I have never seen it in any collection, nor known of its capture by any entomologist. Lugger mentions it, 2d Minn. Rept., 1896, 143, but without positively asserting that it occurs in Minn. It is possible that Loew was mistaken in the locality of his specimen.

LIPOPTENA.

NITSCH, Germ. Mag. f. Ent., iii, 310, 1818.

SCHINER, Fauna Austr., ii, 648, 1864.

COOPER CURTICE, Animal Parasites of Sheep, Washington, 1890.

depressa SAY, Jour. Acad. Sci. Phil., iii, 104; Compl. Works, ii, 88 (*Melophagus*).—Pa.; on *Cervus virginianus*, the common deer.

Gen. ref. by "Loew in litt."—O. S. Cat.

TOWNSEND, Annals and Mag. Nat. Hist., xx, 289, describes var. *mexicana*, on the Mexican variety of the common deer.—Vera Cruz.

mazamæ RONDANI, Annali Mus. Civ., etc., Genova, 1878, 153.—Central America, on *Cervus mexicanus*.

ORNITHEZA.

SPEISER, Termész. Füzetek, xxv, 327, 1902.

pilosula VAN DER WULP, Biologia, Dipt., ii, 432, pl. xiii, f. 6 (*Ornithomyia*).—Costa Rica.

AUSTEN, Ann. and Mag. Nat. Hist., ser. 7, xii, 262, gen. ref. and notes.

? *varipes* WALKER, List, iv, 1146 (*Ornithomyia*).—Colombia.

VAN DER WULP, Biologia, Dipt., ii, 431 (*Ornithomyia avicularia* LINN.).—Costa Rica.

AUSTEN, Ann. and Mag. Nat. Hist., ser. 7, xii, 262, syn. from Walker's and Van der Wulp's specimens; oc. in Peru, Orizaba and Hawaiian Islands; gen. ref. with a doubt.

ORNITHOMYIA.

LATREILLE, Hist. Nat. Crust. et Ins., iii, 466, 1802; xiv, 402, 1804.

SCHINER, Fauna Austr., ii, 646, 1864.

SPEISER, Termész. Füzetek, 1902, 327, subdivides.

- avicularia** LINNÉ, Fauna Suec., 472, No. 1922 (*Hippobosca*).—Europe; “habitat in passeribus.”
- LEACH, Eprob. Insects, 15, pl. xxv, f. 4-5 (id.); p. 14 (*viridis*).
- DEGEER, Mém. Hist. Nat. Ins., vi, 114, pl. xvi, f. 21-27 (id.).
- MEIGEN, Syst. Besch., vi, 232.
- SCHINER, Fauna Austr., ii, 647.
- ? FITCH, Trans. N. Y. Agl. Soc., ix, 799, 1849, popular acct.
- VAN DER WULP, Tijdschr. v. Ent., xii, 80, oc. in N. A.; this, however, may be *Ornithexa varipes*.
- bellardiana** RONDANI, see *Ornithoctona*.
- butalis** COQUILLETT, Dipt. of the Commander Ids., 346.—Bering Id., on *Butalis sibirica*.
- erythrocephala** LEACH, see *Ornithoctona*.
- fulvifrons** WALKER, List, iv, 1145.—Jamaica; on *Ortyx virginiana*.
- fusciventris** WIEDEMANN, Auss. Zw., ii, 611.—Ky.
- ? MACQUART, Dipt. Exot., Suppl. i, 346 (*testacea*).—Colombia.
- RONDANI, Annali Mus. Civ. etc., Genova, 1878, xii, 9, desc. and syn. with a ?.—Mexico.
- hatiensis** BIGOT, see *Ornithoctona*.
- nebulosa** SAY, Jour. Acad. Sci. Phil., iii, 102; Compl. Works, ii, 87.—West of Mo. River, on *Strix nebulosa*.
- WIEDEMANN, Auss. Zw., ii, 610.
- nitens** BIGOT, see *Ornithopertha*.
- pallida** SAY, Jour. Acad. Sci. Phil., iii, 103; Compl. Works, ii, 87.—West of Mo. River, on *Sylvia sialis*.
- WIEDEMANN, Auss. Zw., ii, 610.—N. A.
- N. J., on reed-bird and red-winged black-bird—Smith Cat.
- unicolor** WALKER, see *Pseudolpersia spinifer*.
- vicina** WALKER, see *Ornithoctona*.
- villadæ** DUGÉS, is referred by Wulp to *Olfersia*, q. v.

ORNITHOCTONA.

- SPEISER, Térmesz. Füzetek, xxv, 327, 1902.
- bellardiana** RONDANI, Annali Mus. Civ. Genova, 1878, 157 (*Ornithomyia*).—Mex. Gen. ref. by Speiser.
- erythrocephala** LEACH, Eprob. Ins., 13, pl. xxvii, f. 4-6 (*Ornithomyia*).—Brazil.
- WIEDEMANN, Auss. Zweifl., ii, 610 (id.).—Cuba.
- WALKER, List, iv, 1143 (id.), oc. in Jamaica.
- ? WILLISTON, Trans. Ent. Soc. Lond., 1896, 439, doubtfully recognized from St. Vincent, W. I. (id.).
- VAN DER WULP, Biologia, Dipt., ii, 431, pl. xii, f. 5 (*Ornithomyia robusta*).—Mexico, Guatemala, Costa Rica, Panama.
- AUSTEN, Ann. and Mag. Nat. Hist., ser. 7, xii, 262, syn. and notes on type of Van der Wulp.
- Porto Rico, on sparrow hawk—Coquillett; Quebec and Guadeloupe—O. S.
- haitensis** BIGOT, Annales, 1885, 242 (*Ornithomyia*).—Hayti.
- SPEISER, Zeitsch. f. Hym. u. Dipt., ii, 168, notes on type and gen. ref.
- vicina** WALKER, List, iv, 1144 (*Ornithomyia*).—Jamaica, on *Ephialtes grammicus*.

STILBOMETOPA.

- COQUILLETT, Canad. Ent., xxxi, 336, 1899.
- fulvifrons** WALKER, List, 1145 (*Ornithomyia*).—Jamaica.

Gen. ref. by Coquillett, Canad. Ent., xxxi, 336.

impressa BIGOT, Annales, 1885, 237 (*Olfersia*).—Cal.

SPEISER, Zeitsch. f. Hym. u. Dipt., 1902, 163, type redesc.

ORNITHOICA.

RONDANI, Annali del Mus. Civ. etc. Genova, xii, 1878, 159.

confluens SAY, Jour. Acad. Sci. Phil., iii, 103; Compl. Works, ii, 87 (*Ornithomyia*).—Pa.

WIEDEMANN, Auss. Zw., ii, 611.

OSTEN SACKEN, Cat., 263, note.

COQUILLETT, Canad. Ent., xxxi, 335, refers to this genus (by mistake it is printed *Anthoica*, an entirely different genus).

SPEISER, Termész. Füzetek, xxv, 334, redesc. from Brazil.

LYNCHIA.

WEYENBERG, Cordoba, 1881, "Dos nuev. esp. del Grupo d. l. Dipt. Putiparos." (I take the ref. from Bigot.)

SPEISER, Zeitsch. f. Hym. u. Dipt., 1902, 157.

pusilla SPEISER, Zeitsch. f. Hym. u. Dipt., 1902, 157.—Cuba.

OLFERSIA.

WIEDEMANN, Auss. Zw., ii, 605, 1830.

SCHINER, Fauna Austr., ii, 1864.

VAN DER WULP, Biologia, Dipt., ii, 429, 1903, table of Mex. species.

SPEISER, Zeitsch. f. Hym. u. Dipt., ii, 152, 1903.

americana LEACH, Eprob. Insects, ii, pl. xxvii, f. 1-3 (*Feronia*).—Ga.

WIEDEMANN, Auss. Zw., ii, 606.

MACQUART, Hist. Nat. Dipt., ii, 641.

PACKARD'S Guide, 1st edit., 417 (*Hippobosca bubonis*).

OSTEN SACKEN, Cat., 213, oc. in Ill., Mass., and Dallas, Texas; on *Bubo virginianus* and *Butor borealis*.

N. J., on screech owl—Smith Cat.; St. Augustine, Fla., on same—Johnson.

albipennis SAY, Jour. Acad. Sci. Phil., iii, 101; Compl. Works, ii, 87.—West of Mo. River, on *Ardea herodias*.

angustifrons VAN DER WULP, Biologia, Dipt., ii, 430, pl. xiii, f. 3.—Teapa, Mex.; Costa Rico.

ardeæ MACQUART, Hist. Nat. Dipt., ii, 640.—Europe; on *Ardea*.

LOEW, in Silliman's Jour., oc. in N. A.

N. J., on American bittern, night heron, and little blue heron.—Smith Cat.

brunnea OLIVIER, Encycl. Méth., viii, 544 (*Ornithomyia*).—Carolina.

Gen. ref. in O. S. Cat.

coriacea VAN DER WULP, see *Pseudolfersia*.

impressa BIGOT, see *Stilbomctopa*.

intertropica WALKER, List, iv, 1144 (*Ornithomyia*).—Galapagos Ids.

AUSTEN, Ann. and Mag. Nat. Hist., ser. 7, xii, 264, gen. ref. from type; oc. in Honolulu, Bahia and Orizaba, one specimen "from the ear of an owl."

mexicana MACQUART, see *Pseudolfersia*.

obliquinervis RONDANI, Annali Mus. Civ., etc., Genova, xii, 1878, 162.—Mex.

pallidilabris RONDANI, Annali Mus. Civ., etc., Genova, xii, 1878, 161.—Mex.

propinqua WALKER, List, IV, 1141.—Jamaica.

sordida BIGOT, see *Pseudolfersia*.

sulcifrons THOMSON, see *Pseudolfersia*.

villadae DUGÉS, La Natureza, I, 20, pl. III, f. 3 (*Ornithomyia*).—Mex.

vulturis VAN DER WULP, see *Pseudolfersia*.

PSEUDOLFERSIA.

COQUILLET, Canad. Ent., XXXI, 336, 1899.

SPEISER, Zeitsch. f. Hym. u. Dipt., IV, 145, 1902.

coriacea VAN DER WULP, Biologia, Dipt., II, 430, pl. XIII, f. 2 (*Olfersia*).—Guatemala.

AUSTEN, Ann. and Mag. Nat. Hist., ser. 7, XII, 265, note on type and gen. ref.; oc. in Mexico and Brazil.

maculata COQUILLET, Canad. Ent., XXXI, 336.—Wis.; on loon and osprey (*Pandion haliaetus carolinensis*).

N. J., from a fish hawk—Smith Cat.

sulcifrons THOMSON, Eugen. Resa, 611 (*Olfersia*).—Panama.

SPEISER, Zeitsch. f. Hym. u. Dipt., II, 149, gen. ref. from desc.; op. cit., IV, 82, notes on type and gen. ref. confirmed.

mexicana MACQUART, Dipt. Exot., II, 3, 78 (*Olfersia*).—Mexico.

SPEISER, Zeitsch. f. Hym. u. Dipt., II, 179, gen. ref. and notes on type.

sordida BIGOT, Annales, 1885, 239 (*Olfersia*).—Guatemala.

SPEISER, Zeitsch. f. Hym. u. Dipt., II, 164, notes on type and gen. ref.

spinifera LEACH, Eprob. Ins., 557, pl. XXVI, f. 1-3 (*Feronia*).

WALKER, List, IV, 1144 (*Ornithomyia unicolor*)—Jamaica, "on *Ephialtes grammicus* and *Frigata aquilus*).

SPEISER, Zeitsch. f. Hym. u. Dipt., II, 147, 148, long discussion and syn.

AUSTEN, Ann. and Mag. Nat. Hist., ser. 7, XII, 265, confirms syn. from types; oc. in Brazil, Ascension, Arabia, Australia, etc., on *Fregata aquila* and *Sula sula*, the frigate-bird and booby respectively. Speiser doubts correct identification of the latter bird.

vulturis VAN DER WULP, Biologia, Dipt., II, 429, pl. XIII, f. 1 (*Olfersia*).—Costa Rica; "parasite of vulture."

AUSTEN, Ann. and Mag. Nat. Hist., ser. 7, XII, 264, gen. ref. and notes on types.

BRACHYPTEROMYIA.

WILLISTON, Ent. News, VII, 184, 1896.

femorata WILLISTON, Ent. News, VII, 185.—Wyo., on *Macropis melanoleucus*.

SPEISER, Wien. Ent. Zeit., XVIII, 202, note on similarity to *Anapera* (sic) *fimbriata* WATERHOUSE.

MELOPHAGUS.

LATREILLE, Hist. Nat. Crust. et Ins., XIV, 402, 1804.

SCHINER, Fauna Austr., II, 649, 1864.

ovinus LINNÉ, Fauna Suec., 472, No. 1923 (*Hippobosca*).—Europe; "habitat inter Ovium lanam."

LEACH, Eprob. Ins., 18, pl. XXVI, f. 14.

MEIGEN, Syst. Besch., VI, 236, pl. LXIV, f. 16.

CURTIS, Brit. Entomol., 142.

SCHINER, Fauna Austr., II, 649.

FITCH, Trans. N. Y. Ag. Soc., IX, 799, popular account.—N. Y.; the sheep tick.

COOPER CURTICE, Animal Parasites of the Sheep, Washington, 1890, full study of the sheep tick.

LUGGER, 2d Rept. Ent. Minn., 1896, 139-143, figs., life hist., etc.

STREBLA.

WIEDEMANN, Analecta Ent., 1824.

RONDANI, Annali Mus. Civ., etc., Genova, XII, 1878, 18.

mexicana RONDANI, Annali Mus. Civ., etc., Genova, XII, 1878, 168.—Mex.

vespertilionis FABRICIUS, Syst. Antl., 339 (*Hippobosca*).—S. A.; "habitat in vespertilionie."

WIEDEMANN, Analecta Ent., 19, f. 7; Auss. Zw., II, 612, pl. x, f. 7.—S. A.

MACQUART, Hist. Nat. Dipt., II, 637, pl. XXIV, f. 7; Dipt. Exot., Suppl. v, 127 (*avium*).—S. A.; San Domingo, on pigeons and parrots. [Lw.]

KOLENATI, Horæ Soc. Ent. Ross., II, 96, pl. xv, f. 36 (*wiedemanni*). [Lw.]

WALKER, List, IV, 1146, oc. in Jamaica.

TRICHOBIUS.

GERVAIS, Atlas de Zool., 1844.

TOWNSEND, Ent. News, II, 106, 1891; III, 177, note on orig. desc.

dugei TOWNSEND, Ent. News, II, 106.—Guanajuato, Mex., on bat.

COQUILLETT, Proc. U. S. N. M., XXII, oc. in Porto Rico, Ariz., and Jamaica.

major COQUILLETT, Canad. Ent., XXXI, 334.—Fla. and Ariz., on bats.

ASPIDOPTERA.

COQUILLETT, Canad. Ent., XXXI, 334, 1899.

busckii COQUILLETT, Canad. Ent., XXXI, 335.—Bayamon, Porto Rico, on bats (*Artibeus* sp.).

ORNITHOPTERHA.

SPEISER, Zeitsch. f. Hym. u. Dipt., 1902, 167.

nitens BIGOT, Annales, 1885, 241 (*Ornithomyia*).—Panama.

SPEISER, Zeitsch. f. Hym. u. Dipt., 1902, 166, type redesc. and gen. ref.

NYCTERIBIIDÆ.

NYCTERIBIA.

LATREILLE, Hist. Nat. Crust. et Ins., III, 467, 1802; XIV, 403, 1804.

WESTWOOD, Trans. Zool. Soc., I, 275, 1834.

SCHINER, Fauna Austr., II, 650, 1864.

OSTEN SACKEN, Cat., 214, mentions an undet. sp. from Cal.

antrozoi TOWNSEND, Jour. N. Y. Ent. Soc., I, 79, 1893.—Las Cruces, N. M.; on the bat *Antrozous fallidus*.

mexicana BIGOT, see *Penicillidia*.

MEGISTOPODA.

MACQUART, Annales Soc. Ent. France, 1852, 331.

pilatei MACQUART, loc. cit., pl. IV, No. 4.—Mex.

KOLENATI, Horæ Soc. Ent. Ross., II, 89, pl. XIV, f. 32 (*Megistopodia*).

Cuba—O. S.

PTERELLIPSIS.

COQUILLET, Canad. Ent., XXXI, 333, 1899.

araneæ COQUILLET, Canad. Ent., XXXI, 334.—Jamaica, Montserrat, and Porto Rico, on bats.

PENICILLIDIA.

KOLENATI, Horæ Soc. Ent. Ross., II, 69, 1862.

mexicana BIGOT, Annales, 1885, 245 (*Nycteribia*).—Mex.

SPEISER, Zeitsch. f. Hym. u. Dipt., 1902, 171, type redesc. (the real type may be the female of Townsend's *antrozoï*, given above).

APPENDIX.

Literature of North American Diptera for the year 1904, with enumeration of new species, genera, etc.

Adams, C. F.

Notes and Descriptions of New North American Diptera. Kans. Univ. Sci. Bull., II, 433-455; June, 1904.

New: *Simulium notatum*, *Mydas abdominalis*, *Xylophagus nitidus*, *Chrysopila lucifera*, *bella* and *flavibarbis*, *Symphoromyia flavipalpis*, *Leptis pleuralis* and *palpalis*, *Psilocephala occipitalis* and *lateralis*, *Thereva anomala*, *Scenopinus mirabilis* and *electa*, *Nausigaster scutellaris*, *Sphyrimorpha snowi*, *Conops gracilis*, *Tetanocera inopa*, *Icterica fasciata*, *Urellia flava*, *conjuncta* and *occidentalis*, *Elachiptera bilineata*, *Hippelates splendens*, *Limosina exigua*, *occidentalis* and *sordipes*.

Tables of Species: *Xylophagus*, *Chrysopila*, *Leptis*, *Icterica*, *Urellia* and *Limosina*.

On the North American Species of Siphonella. Psyche, XI, 103, 104; Oct., 1904.

New: *S. parva* and *nigra*.

European species from this realm: *S. trilincata* MEIG.

Descriptions of New Oscinidæ. Ent. News, xv, 303, 304; Nov., 1904.

New: *Chlorops pulla*, *lasciva*, *rubrivittata*, *annulata* and *certima*.

Aldrich, J. M.

New Species of Phoridae in Brues's Monograph. Trans. Amer. Ent. Soc., XXIX, 331-400. Pub. Jan., 1904. Four species, included in the body of the Catalogue.

The Genus *Psilopus* of Authors. Canad. Ent., XXXVI, 246, 247; Aug., 1904.

Bibliography and synonymy of *Psilopodinus* and *Agonosoma*; no new species.

A Contribution to the Study of North American Dolichopodidæ. Trans. Amer. Ent. Soc., XXX, 269-286; 1904.

New: *Pelastoncirus scutatus*, *parvus*, *falcatus* and *proximus*, *Paraclius vicinus*, *Psilopodinus pilicornis*, *crinitus*, *viridicoxa* and *flavipes*, *Agonosoma rotundiceps* and *costale*; also two Brazilian species. Table of genera and tables of species in several genera.

Back, E. A.

New Species of North American Asilidæ. Canad. Ent., XXXVI, 289-293; Oct., 1904.

New: *Dasyllis cinerea* and *fernaldi*, *Saropogon rufus* and *albifrons*, *Ospreocerus albifasciatus*, *Anisopogon johnsoni*.

Baker, C. F.

Invertebrata Pacifica, I, 17-40; Feb. 10, 1904. Printed by the Author, Claremont, Cal.

A long faunal list of Diptera from California and Nevada. The new species are described by Coquillett, q. v. The following European are new to North America: *Lonchoptera lacustris* MEIG., *Psilopa comta* MEIG., *Mosillus æneus* FALL.

Note.—The *Limnophora borealis* STEIN is a clerical error; there is no such species—Coquillett in litt.

Banks, Nathan.

The "Yellow Fly" of the Dismal Swamp. Ent. News, xv, 290, 291; Nov., 1904.

Identified as *Diachlorus ferrugatus* FAER.

Bezzi, Mario.

Verzeichniss der bis jetzt bekannten Arten der Dipteren-Gattung *Drapetis* Meig. Wien. Ent. Zeit., xxiii, 143-146, 1904.

Includes the North American species; none new.

Brimley, C. S. and Sherman, Franklin.

List of the Tabanidæ of North Carolina. Ent. News, xv, 270-275.

No new species.

Brues, C. T.

Monograph of N. A. Phoridæ. This is included in the body of the Catalogue; see the family, p. 334.

Notes on *Trichobius* and the Systematic Position of the Streblidæ. Bull. Amer. Mus. Nat. Hist., xx, Art. viii.

No new species.

Card, F. W. and Stene, A. E.

Article on the Apple Maggot (*Rhagoletis pomonella*) in 17th Rept. of R. I. Expt. Station, 1904, 191-201. Purely economic.

Chagnon, G.

Additions to the Syrphidæ of the Province of Quebec. 34th Ann. Rept. Ent. Soc. of Ontario, 1904, 48, 49.

Eight species mentioned; none new.

Chittenden, F. H.

The Cherry Fruit Fly. Bulletin No. 44, Div. of Ent., 70-75, 1904.

Review of the habits, etc., of *Rhagoletis cingulata* Lw.

Cockerell, T. D. A.

Three New Cecidomyiid Flies. Canad. Ent., xxxvi, 155, 156; June, 1904.

New: *Diplosis coloradella*, *Rhabdophaga porterae*, *Cecidomyia peroculta*.

Cook, Melville T.

Galls and the Insects Producing Them. Ohio Naturalist, 1904.

A series of articles from a botanical standpoint chiefly; several Dip-terous galls described; no new species.

Coquillett, D. W.

Several New Diptera from North America. Canad. Ent., xxxvi, 10-12; Jan., 1904.

New: *Culex dupreii*, *Janthinosoma* (*Conchyliastes*) *varipes*, *Metriocnemus knabi*, *Cuterebra grisea*, *Bischofia varia* (the last a genus of Scio-myzidæ heretofore known from Europe).

Notes on *Culex nigrutilus*. Ent. News, xv, 73, 74; Feb., 1904.

The American species formerly called *nigrutilus* is distinct, and the name *salinarius* is proposed for it. *Nigrutilus* is not North American. Invertebrata Pacifica. Reports on the Californian and Nevadan Diptera, 1

(See notice under C. F. Baker.) Mr. Coquillett described the new species as follows: *Mycetophila trifasciata* and *feneestrata*, *Neocnephria pullata*, *Sciophila calcarata*, *Dilophus occipitalis*, *Leptis flavonigra*, *Pheneus opacus*, *Tabanus opacus*, *Thereva flavicauda*, *Acroccra bakeri*, *Rhamphomyia curvipes*, *Chilosia plumosa*, *Zagonia* (n. gen. Geomyzidæ) *flava*, *Hippelates microcentrus*, *Chyliza robusta*, *Meliceria occidentalis*, *Spilo-*

grapha inæqualis, *Tephritis palpalis*, *Euaecsta adspersa*, *Sapromyza cæsia* and *univittata*, *Eccoptomera* (Europ. gen. *Helomyzidæ*) *simplex*, *Cænosiæ argentata* and *majuscula*, *Lispa polita*, *Phaonia fimbriata*, *Admontia setigera*, *Biomyia mutabilis*, *Scelopogon jubatus*, *Leptomylas hirtus* and *concinuus*.

Diptera from Southern Texas, with Descriptions of New Species. Jour. N. Y. Ent. Soc., xii, 31-35; March, 1904.

Eight described species listed; the following new: *Cyphomyia schæfferi*, *Phthiria unimaculata*, *Holopogon latus*, *Stenopogon tenebrosus*, *pumilus* and *nitens*, *Erax tuberculata*, *Anastrepha pallens*, *Sepsis pleuralis*.

New Diptera from Central America. Proc. Ent. Soc. Wash., vi, 90-98; May, 1904.

New: *Ceratopogon terminalis*, *Sciara trifasciata*, *Dilophus fumosus* and *rhynchops*, *Psilcephala pruinosa*, *Conops pallifrons*, *Paradidyma orbitalis*, *Hypostena gracilis*, *Chatoclusia* (n. gen. *Heteroneuridæ*) *bakeri*, *Sapromyza varia*, *albipes* and *triseriata*, *Euxesta juncta* and *fenestrata*, *Icterica apicalis*, *Notiphila frontalis*, *Scutops* (n. gen. *Geomyzidæ*) *fascipennis*, *Chlorops capillata*.

New North American Diptera. Proc. Ent. Soc. Wash., vi, 166-192; July, 1904.

New: *Ceratopogon medius*, *Tæniorhynchus nigricans* and *signipennis*, *Culex nivitarsis* and *pullatus*, *Eugnoriste brevirostris*, *Acnemia varipennis*, *Phronia tenebrosa*, *Calosia* (Europ. gen. *Mycetophilidæ*) *pygophora*, *Platyura pullata*, *Bibiodes* (n. gen. *Bibionidæ*) *halteralis*, *Symphoromyia securifera*, *Phthiria melanoscutea*, *fulvida*, *marginata*, *vittiventris*, *nubeculosa*, *inornata*, *badia*, *picturata*, *flavcola*, *amplicella* and *bicolor*, *Acreotrichus atratus*, *Psilcephala aurantiaca*, *Leptogaster virgatus* and *hirtipes*, *Ablautus flavipes* and *rubens*, *Stenopogon nigrifrons*, *Laphystia flavipes*, *limatula* and *opaca*, *Diectrodes* (n. gen. *Asilidæ*) *flavipes*, *Metapogon* (n. gen. *Asilidæ*) *gikvipes* and *punctipennis*, *Cyrtopogon nigricolor*, *tibialis*, *maculosus* and *varipennis*, *Saropogon luteus*, *hyalinus* and *semitus*, *Psilopodinus* (*Sciapus*) *pruinosis*, *Distichona auriceps*, *Sarcophaga amblycorypha*, *Pegomyia bucculenta*, *Nerius longicornis*, *Lauzanina signatifrons*, *Sapromyza picticornis*, *Drosophila ordinaria*, *Sinophthalmus* (n. gen. *Geomyzidæ*) *pictus*, *Agromyza tæniola*.

The Genera of the Dipterous Family Empididæ (addenda). Proc. Ent. Soc. Wash., vi, 51.

No new species.

Notes on the Syrphid Fly *Pipiza radicum* Walsh and Riley. Proc. Ent. Soc. Wash., vi, 200.

Czerny, P. Leander.

Revision der Helomyziden. I. Wien. Ent. Zeit., xxiii, 199-244, 1904. II. Op. cit., 263-286, 1 pl.; Dec. 31, 1904.

Quotes descriptions of North American species; records *Helomyza nemorum* MEIG., a European species, from Colorado. The work is still incomplete.

Dyar, H. G.

The Life History of *Culex cantans* Meig. Jour. N. Y. Ent. Soc., xii, 36-38, 1904.

The Life History of *Culex varipalpus* Coq. Jour. N. Y. Ent. Soc., xii, 90-99, 1904.

Larva of *Culex punctor* Kirby, with Notes on an Allied Form. Jour. N. Y. Ent. Soc., xii, 169-171, 1904.

New: *Culex trichurus*.

Brief Notes on Mosquito Larvæ. Jour. N. Y. Ent. Soc., xii, 172-174, 1904.

No new species.

Notes on the Mosquitoes of British Columbia. Proc. Ent. Soc. Wash., vi, 37-41, 1904.

Notes on biology of 17 species; none new.

Dyar, H. G. and Knab, Frederick.

Diverse Mosquito Larvæ that produce Similar Adults. Proc. Ent. Soc. Wash., vi, 143, 144, 1904.

No new species.

Emerton, J. H.

A Dipterous Parasite of the Box Turtle. Psyche, xi, 34; Apr., 1904.

Brief note on *Sarcophaga* sp.

Felt, E. P. and Young, D. B.

Importance of Isolated Rearings of Culicid Larvæ. Science, xx, 312, 313; 1904.

New, briefly diagnosed: *Culex fitchii*, *lazarensis*, *cinereoborcalis*, *abserratus*.

Felt, E. P.

Mosquitoes or Culicidæ of New York State. Bull. 79, N. Y. State Museum. Albany, 1904; pp. 241-400, 57 plates and many text figures.

New genera: *Culicada*, *Culicelsa*, *Ecculex*, *Culicella*, *Culiscta*, *Protoculex*.

New species: *Culicada onondagensis*, *Culiscta absobrinus* and *magnipennis*, *Corethra karnercensis* and *linnceri*, *Sayomyia rotundifolia* and *hudsoni*, *Culex abfitchii*.

Fletcher, Jas.

Notes of Captures. Diptera. 34th Ann. Rept. Ent. Soc. Ontario, 1904, pp. 98, 99.

Fifty-five species listed from Canada, none new.

French, G. H.

Gastrophilus epilepsalis Larvæ and Epilepsy. Canad. Ent., xxxvi, 83, 84; March, 1904.

Reasserts his theory.

Girault, A. Arsène.

Tanyus dyari: Pupa and Adult Exclusion. Psyche, xi, 81, 82; Aug., 1904.

Grossbeck, John A.

Description of a new *Culex*. Canad. Ent., xxxvi, 332; Nov., 1904.

Culex siphonalis.

Descriptions of Two New Species of *Culex*. Ent. News, xv, 332, 333; Dec., 1904.

Culex pretans and *inconspicuus*.

Herrick, Glenn W.

Notes on the Life History of *Grabhamia jamaicensis*. Ent. News, xv, 81-84, 1 pl.; Mar., 1904.

Hine, Jas. S.

New Species of Tabanidæ. Canad. Ent., xxxvi, 55, 56; Feb., 1904.

New: *Chrysops fulvistigma* and *brimleyi*.

On Diptera of the Family Ephydridæ. Ohio Naturalist, Feb., 1904.

New: *Psilopa fulvipennis*, *Cænia virida*.

European species identified from U. S.: *Cænia fumosa* STEN.

Tables of species of *Dichata* and *Cænia*.

The Diptera of British Columbia. Canad. Ent., xxxvi, 85-92; Apr., 1904.

Extensive list of described species.

New: *Euparyphus obliquus*, *Anthrax harveyi*.

European reported: *Pyrellia ænea* ZETT.

Insects Injurious to Stock in the Vicinity of the Gulf Biologic Station.

In Bull. No. 44, Div. of Ent., 57-60, 1904.

A few Tabanidæ mentioned; no new species.

Tabanidæ of the Western United States and Canada. Ohio Naturalist, v, 217-249; Dec., 1904.

Keys to genera and species. New species: *Chrysops coquilletti*, *Snowicellus* (n. gen.) *atratus*, *Tabanus flavidus*, *laticeps*, *laticornis*, *osburni*, *productus*; some new synonymy.

Johnson, C. W.

Some Notes and Descriptions of Four New Diptera. Psyche, xi, 15-20; Feb., 1904.

New: *Tabanus whitneyi*, *Oncodes albiventris*, *Argyra aldrichi*, *Alophora magnapennis*.

Tabanus politus changed to *hinei*, on account of preoccupation.

Several important notes.

When to Collect Tabanidæ. Psyche, xi, 35; Apr., 1904.

List of species collected at Riverton, N. J.; some other notes; no new species.

Some of the Diptera to be collected during April and May. Psyche, xi, 37, 38; Apr., 1904.

General notes; no new species.

A Supplementary List of the Diptera of New Jersey. Ent. News, xv, 157-163; May, 1904.

Supplementary to the Smith Catalogue; no new species.

Knab, Frederick.

The Epistomal Appendages of Mosquito Larvæ. Jour. N. Y. Ent. Soc., xii, 175-177, 1904.

Ludlow, C. S.

Mosquito Notes. Canad. Ent., xxxvi, 233-236; Aug., 1904.

New: *Grabhamia de-Niedmannii*.

McCracken, Isabel.

Anopheles of California, with Description of a New Species. Ent. News, xv, 9-14, 1 pl.; Jan., 1904.

New: *Anopheles franciscanus*.

Melander, A. L.

Notes on Stratiomyidæ. Canad. Ent., xxxvi, 14-24 and 53, 54; Jan. and Feb., 1904.

New: *Sargus texanus*. Several tables of species, and other matter.

Additional Notes on Nematelus. Psyche, xi, 33, 34; Apr., 1904.

No new species.

Osburn, R. C.

The Diptera of British Columbia: The Syrphidæ. Canad. Ent., xxxvi, 213-220 and 257-262; Aug. and Sept., 1904.

List of 78 species; none new.

Slingerland, M. V. and Johnson, Fred.

A New Grape Enemy; the Grape Blossom-Bud Gnat. Bull. 224, Cornell Expt. Station, p. 71; Nov., 1904.

An undetermined Cecidomyid; habits described.

Smith, John B.

Report on the Mosquito Investigation. Annual Report N. J. Expt. Station for 1903, published 1904, pp. 645-659.

No new species.

Notes on the Life History of *Culex dupreei* Coq. Ent. News, xv, 49-51, 1 pl.; Feb., 1904.

No new species.

Notes on Some Mosquito Larvæ found in New Jersey. Ent. News, xv, 145-152, 1 pl.; May, 1904.

No new species.

The Common Mosquitoes of New Jersey. Bull. No. 171, N. J. Expt. Station, 1904; 40 pp., 12 plates and some text figures.

Valuable for biology; no new species.

Snodgrass, Robt. E.

The Terminal Abdominal Segments of Female Tipulidæ. Jour. N. Y. Ent. Soc., xi, 177-188, 2 pl.; Dec., 1903.

The Hypopygium of the Tipulidæ. Trans. Amer. Ent. Soc., xxx, 179-236, 11 pl.; Aug., 1904.

The Hypopygium of the Dolichopodidæ. Proc. Cal. Acad. Sci., 3d ser., iii, No. 10, pp. 273-288, 4 pl.; Sept., 1904.

The three preceding papers are purely anatomical, but not less valuable for classification, as a large number of genera are compared in each group.

Snow, F. H.

Lists of Coleoptera, Lepidoptera, Diptera and Hemiptera collected in Arizona by the Entomological Expeditions of the University of Kansas in 1902 and 1903. Kans. Univ. Sci. Bull., May, 1904, Vol. ii. Diptera on pp. 341-346; 201 species, none new.

Speiser, P.

Typenuntersuchungen an Hippobosciden. Zeitsch. f. syst. Hym. und Dipterologie, iv, 82-89; March, 1904.

Type of *Olfersia sulcifrons* THOMSON is referred to *Pseudolfersia*.

Zur Nomenclatur Blutsaugender Dipteren Amerikas. Insekten-Börse, 1904, 148, brief notice.

On account of preoccupation, *Simulium cinereum* BELLARDI is changed to *tephrodes*, and *Culex affinis* ADAMS to *pūs*.

Stein, P.

Die Amerikanischen Anthomyiden des Königlichen Museums für Naturkunde zu Berlin und des Ungarischen National Museums zu Budapest. Annales Musei Nationalis Hungarici, ii, 414-495, 1904.

Mostly South American. New from N. A.: *Aricia fulvillata*, *Trichopticus spiniger*, *Hylemyia spinilamellata* and *canosiaformis*, *Canosia compressa*.

European from N. A.: *Aricia serpa* MEIG., *Spilogaster obscuripes* ZETT., *Spilogaster anceps* ZETT., *Homalomyia ornata* MEIG.

South American from N. A.: *Spilogaster gemina* WIED., *Limnophora serpa* WIED.

Washburn, F. L.

Eighth Report of the State Entomologist of Minnesota, for the year 1903 (pub. Jan., 1904). 184 pp., with plates, etc.

Article on Hessian fly, pp. 1-11.

Ninth Report of the State Entomologist of Minnesota, for the year 1904 (pub. Dec., 1904). 197 pp., with col. plate, etc.

P. 185, notes on mostly undetermined Cecidomyid gall-makers on bass-wood, soft maple and box elder; p. 188, fumigation for *Diplosis violicola* Coq.

Webster, F. M.

Studies of the Habits and Development of *Neocarata rhodophaga* Coq. Bull. Ill. State Lab. Nat. Hist., VIII, 15-25, 1 col. pl.; Feb., 1904.

Wood, Clarence M.

Experiments in destroying Black Flies. Bull. 112, N. H. Expt. Station; May, 1904.

The species is *Simulium venustum* SAY.

Weeks, Henry Clay.

First Anti-Mosquito Convention. Brooklyn, 1904. 84 pp.

Several general papers.

Bulletin No. 1, National Mosquito Extermination Society. Nov., 1904. 25 pp. and supplements.

Whitney, C. P.

Descriptions of Some New Species of Tabanidæ. Canad. Ent., XXXVI, 205-207; July, 1904.

New: *Chrysops lupus* and *pikci*, *Tabanus benedictus* and *typhus*.

ADDITIONS AND CORRECTIONS.

The following papers are to be added to the bibliography:

Coquillett, D. W.

Papers from the Hopkins-Stanford Galapagos Expedition, 1898-1899.
Diptera. Wash. Acad. Sci., III, 371-379; Nov. 7, 1901.

Contains a small list of Diptera; one of the new species, *Canace snodgrassi*, was afterward reported from N. A., and will be found in the catalogue.

Marten, John.

New Tabanidæ. Canadian Entomologist, XIV, 210-212; Nov., 1882.

Contains the following four species (synonymy by Hine): *Tabanus californicus* (syn. of *cpistates*), *T. hamophorus* (syn. of *sonomensis*), *T. captonis* (of which *comastes* is a syn.), and *T. centron* (from Col.; the second form of *rhombicus*, in Osten Sacken's Western Diptera, 218).

Piper, C. V., and Doane, R. E.

Insects injurious to Currants and Gooseberries. Bull. 36, Wash. Ex. Sta.; May, 1898.

Biology of *Rhagoletis ribicola* and *Epochra canadensis*; the entries are included in the catalogue.

Ricardo, Miss.

Several articles on Bigot's and Walker's types of Tabanidæ, in Annals and Mag. of Nat. History, ser. 7, VIII.

Not seen; no new species.

Corrections:

Page 6, omit Lonchæidæ from the list of families, as it was finally united with Sapromyzidæ.

Page 8, third line from bottom, for *opposia* read *opposita*.

Page 115, third line from top, for *Chiconomus* read *Chironomus*.

Pages 134 and 136, for *Ædes* and *Ædeomyia* read *Aëdes* and *Aëdeomyia*.

Page 264, *Deromyia cuantlensis* should be *cuautlensis*, and the locality Cuantla, Mex., wherever occurring, should be changed to Cuautla; see Townsend, Annals and Mag. Nat. Hist., ser. 6, XX, 279.

Page 287, *Agonosoma tener* should be *tenerum*.

Page 319, add the following species under *Leptopczia*:

disparilis MELANDER, Monogr. Empid., 258, f. 69.—Cal., Ida.

Page 321, for *Empis ærobaticus* read *Empis aërobaticus*.

Page 664, line 6, *Limnophora sacra* had already been reported by Van der Wulp under the genus *Leucomelina*.

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